IMPUTERWO

Sun Users Left to Wonder What's Next Vendor plans to slash up to 5,000 jobs, cut R&D and 'simplify' product lines

cun Microsystems Inc. last work revealed plans to cut its workforce by 4,000 to 5,000. sell off some real estate, eliminate redundant R&D projects and "simplify" its

product line. I think What the com-Jonathan bias t'nsad vasc [Schwartz] has is what products will be affected. a pretty clear how research understandand development ing of what he will change, and needs to get whether customers will be dealing done, but a lot with different Sun of us are foggy representatives after the layoff of on the details.

nouncement of the moves to financial analysis last week, Sun CEO lonathan Schwartz pledged that customers will not be affected by the cutbacks. Schwartz contended that the changes will improve the company's focus on core products.

11% to 13% of its

employees.

In his an-

Analysts were skeptical of Schwartz's pledge and pendicted that Sun's customers will see changes such as potential cutbacks in sales support, Meanwhile, Sun us ers are simply boping that the company will provide more details about how the cutbacks may affect them

> "It's cloudy for all of us," Brian Conlon CIO at Washington-based Howrey Simon Arnold & White LLP, said of Sun's plans, But Conlon. whose law firm uses Solaris-based UltraSparc systems to run its ERP and financial annlications said

> > be remains com-

mitted to Sun "For

availability and reliability it hasn't changed - we're still big fams," Based on what he gleaned

forgy on the details." Conton said the lavoffs could make the company leaner, and Sun, page 57

from a meeting with Schwartz last year Conlon said "I think Jonathan has a pretty clear understanding of what he needs to get done, but a lot of us are

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12-4

STORM SURGE

Tretani **NEWS SPECIAL REPORT**

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VA Takes Initial Steps to

Address Security Woes Agency promises to reform internal policies following massive data breach

---The fallout from the massive security breach at the U.S.

Department of Veterans Affairs continued last week with the appointment of a "special adviser for information security" at the agency and an announcement that the VA is firing the data analyst who

improperly took personal information about 26.5 million veterans bome with him. Belearmened VA Secretary

R. James Nicholson also made several management changes in the VA's Office of Policy and Planning, the division in which the data analyst worked. In addition, Nicholson has

ordered all VA employees to complete an annual data privacy and cybersecurity awareness training course by the end of lune and directed senior officials at the agence to compile a master list of all workers and contractors who

need to access sensitive data The moves were triggered by last month's disclosure that a laptop PC and external hard drive were stolen from the data analyst's home, potentially compromising the names, birth dates and Social Security numbers of all veter-

VA Security, page 16





_DAY 13: These underpowered boxes are killing us. They can't handle the workloads. They can't handle the transactions. They can't handle the growing number of users. And I far sure can't handle the crist.

_I'm putting all this junk out where it belongs and buying some real servers.

.DAY 15: I've taken bock control by moving to the IBM System p* plotform. It's number one in over 70 teoting benchanris.

Take transaction pracessing for instance — the System p5 730 pracesses three times on small yrransactions prace into 50 pracesses. There it is so in our pracessing for instance — the System p5 730 pracesses three times on small yrransactions per minute on 50 pt Plansack500 Amultis price/performance is better. It's all I ever monted in a URIX server.

.As for the ald servers, well...they kept crashing.
Into the ground,



IBM.COM/TAKEBACKCONTROL/p5

06.05.06

Wi-Fi/Cellular at Crossroads

In the Technology section: The coming convergence of mobile devices and W+FL cellular and even WiMax networks could simplify network access — once all of the kinks are worked our. Page 25



Remote Control

in the Management section: Do you know how to manage an outsourced project? Marriott International's Kent Petty and Accenture's Yutta Shelton have a deceptively simple suggestion. Page 39

NEWS

ITS STORM SURBE 30 Omen, with bulances was reproduced in and search or fundamental and search or fundamental and search of fundamental and search o

SPECIAL REPORT BEGINS ON PAGE 6.

Red Hat announces plans to halt development of the Red

Hat Application Server.

14 Computerworld Honors AMD
Ruiz discusses the microprocessur market and other issues.

14 YMware plans to unveil product bundles that include upgraded software and server offerings.

15 All California precincts must provide a paper trail for votes cast in an election there this week. 18 Global Dispatches: Officials say a Lancemboure court's invali-

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57 Microsoft is set to outline an updated plan for its BI business, but users say the current crop of tools is already beloing them cut costs.

TECHNOLOGY

O Future Watch, Minds of Micro-Jostf, Microsoff, Research balances work on real-world problems in a reas such as security and search engine design with fundamental research in areas such as the development of AIDS vaccines. Here's an inside look at projects in the lab and how key research efforts came about.

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3 Saying You're Wrong Can Feel
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and the lessons they learned.

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46 Career Watch. What happened to IT workers who left the field after the doe-com bubble burst? Meanwhile, the number of TT workers is inching back up. Plus, there's a new initiative to recruit women and minorities to IT.

40 Q&A: Under Threat of Litigation Oil you haven't yet suffered through a software audit, just wait, says attorney Robert J. Scott Here's what you need to know to survive one.

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12 On the Mark: Mark Hall is told by an exec at a security software vendor that mobile phones will be IT's next nightmare.



Dun Tennaet hears from a treader who found last week's editorial cartoon about the VA data breach to be a "tasteless attempt at humor." But that cartoon aimed to make no one laugh.

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What You Need to Know About Network Provisioning

METWORKING: Doo't miss these tips from an expert at US Airways West, which runs more than 29 core applications through its network to support a highly disbursed loternational workforce. O www.comstaworkforce.

How to Choose a Network Management System -NETWORKING: Expert Jeffrey Orloff lists

the top features you'll want.

O www.computerworld.com/networking

Back From the Brink WEBCAST: Last year's hurricane seasoo caused chaos on the Gulf Coast. In this panel discus-

sion, recorded at Computerworld's 2006 Premicr 100 IT Leaders Conference, IT executives who lived through it offer candid views of how their IT and business continuity plans worked, what they didn't see coming, and how they plan to prepare for and respond to the next calamity. Or www.computerworld.com/worldessts

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IT'S STORM SURGE

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MANAGEMENT

42 Toughest Tests. Five IT leaders share the most challenging experiences of their careers and the lessons they learned.

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Back From the Brink

WROGAN: LIMIT YOU IS MAINTAIN.

CHAOS ON the GAIT COAST. In this panel discussion, recorded at Computerwork's 2005 Premier 100 IT Leader Sonference, IT executives who lived through it offer candid views of how their IT and business continuity plans worked, what they didn't see coming, and how they plan to prepare for and respond to the next calamily. Or www.computerwork.new fuels.

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IT Execs Race Against Time Along Gulf Coast

Users scramble to shore up systems as the new hurricane season starts

ROM HIS office with Acre at the Linivers sity of New Orleans Im Burnard can see construction crews. working fevership to repair the London Avenue canal.

during Hurrscane Katrina last August - cousing flooding on compus and contributing heavily to the cutastrophic man-dation of most of the Crescent City.

Burgard, who is the essistant vice chancelfor for university computing and communications. and his staff have also been to three to shore up the school's 11 systems for the possibilits of another big storm. Like many other users working on smilar intratives in the sec-

tion of the Gulf Coast ray weed by Katrina, he had hoped to meet a self-imposed deadline of last Thursday, Thur day marked the official start of this do the work

Continued on page 8

your's hurricane season But Burgard now doesn't expect to finish all the work needed to overhaul and upgrade his business continuity and disaster recovery

capabilities until the end of August. The University of New Orleans is still running 75° of its mission-critical appli-

cations on 25 servers housed at Louisiana data center in Baton Rouge. The school had planned to shift those applications back to its own

data center by mid-April, but Buroard said it ran into delays in upgrading its air conditioning and uninterruptible power succh systems and installing

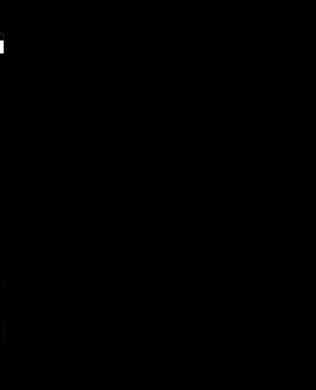
Storms Prompt New Approaches Inside IT

natural eas. The culorit the difficulty of snorging scarce - and pricey - contractors to "It didn't make a lot of sense to switch our applications back to cameus and have to deal

with outages because of the work we're doing in the comouter norm." Bureard said. His new road is to convolete the data center upenades by the end of this month. The servers at I SI will

remain there even after the work in New Orleans is done. turning the makeshift Buton Rouge data center into a horswarpable disaster recovery site. Bureard plans to mirror and replicate the university's data to those servers so they can take over processing if the New Orleans compas has to be evacuated again He said

it likely will take until late August to finish setting up the Other IT managers whose operations were in Katrina's path also are still working to





IT Execs Race Against Time Along Gulf Coast

Users scramble to shore up systems as the new hurricane season starts

BY HEATHER HAVEMSTE

ROM HIS office window at the University of New Oricans, Jim Burgard can see construction crews working feverishly to repair

the London Avenue canal, which was breached during Hurricane Katrina last August — causing flooding on campus and contribu-

ing heavily to the catastrophic inandation of most of the Cresceot City. Burgard, who is the assistant vice chancel-

lor for university computing and communications, and his staff have also been tolking to shore up the school's IT systems for the possibility of another big storm. Like many other users working on similar initiatives in the section of the Gulf Coast ravaged by Katrina, he had hoped to meet a self-imposed deadline of last Thursday. That day marked the official start of this

marked the official start of this year's hurricane season. But Burgard now doesn't expect to finish all the work needed to overhaul and upgrade his business continuity

and disaster recovery capabilities until the end of August. The University of New Orleans is still

New Orleans is still running 75% of its mission-critical applications on 25 servers housed at Louisiana State University's data center in Baton Reuser. The school

had planned to shift those applications back to its own data center by mid-April, but Bargard said it ran into delays in upgrading its air conditioning and uninterruptible power supply systems and installing

a new generator powered by natural gas. The culprit: the difficulty of snagging scarce — and pricey — contractors to

I do the work.

"It didn't make a lot of scose to switch our applications back to campus and have to deal is with outages because of the work we're doing in the computer room." Burgard said. His new goal is to complete the data cecter upgrades by the

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Other FT managers whose operations were in Katrina's path also are still working to Continued on page 8



Florida Guardian ad Litem Saw the Future of Child Advocacy. Citrix Provided Access.



and majested cell with a plantial a strong advicate in court. Two years later, we're well on our way. Tooley, program staff, altameys and over 5,000 valunteers represent more than 27,000 children insteader of information in file drawers scattered all over the staff. Chiri software gives advicates source access to our case management system from anywhere. Resources are procious, so we must apoly them wells, not wester from chassing data. These lokis depend on us. That's why we're depending on Clitic to take us the rest of the way to advicate the every Firstic shalf in ones.

HNNY C. WHITE

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CITRIX.

Continued from page 6 nut stronger defenses in place For example, since Katrina rendered the Gulfport, Miss. beadquarters of Hangock Bank uninhabitable the bank has been running its IT operations from a building that previously housed its training staff Now Hancock is building a hard-med data center, also in Gulfoort but 10 miles from the ocean and at a higher elevation than the former headquarters. said Norman McDonald, manoner of information

security and business continuity at the bank However the new data contaction't school uled to be compared until next spring the uncoming burricanc season in a less buildingwise," he said.

In addition, the bank which one its IT systems from disaster recovery hot sites in Chicago and Atlanta for two and a half months after Katrina - began a project late last month to set up campbilities for replicating data to the Chicago facility. That work should be completed within 60 days, according to McDonald. The goal, he said, is to have the bank's customer facine systems back up within four hours of being shut down in the event of a hurricane or other dissense

One of the main shallennes for the New Orleans-based Ochener Clinic Foundation during the aftermath of Katrina was its inability to generate enough power at times to cool its primary data center. The health care provider, which operates a 600-bed hospital in the city and medical clinics throughout Louisiana has since added a fourth diesel generator and acquired some nortable spot chillers, said

CIO Lynn Witherspoon. Ochsner also has tried to improve the redundancy of its WAN by adding a third later. net circuit in Covington, La., and burying an existing one that previously was located on a telephone pole on the hospital grounds, he added.

But there's more to be done. Although Ochsner has a dispater recovery has site in place for its mainframe. Witherspoon said the foundation needs a recovery plan for its Lawson ERP applications and its electronic medical procede system. The IT staff has been on a project to replicate the mediand reported to a data company In Baton Rouse, but that isn't

scheduled to be finished notif

the end of the summer "Katrina was the hundredyear storm," Witherspoon said, "We'd all feel much more comfortshie if some of this was in place right now because of the fessility of the bur ricane protection here in New Orleans But we're crossing our

fineers and hoping

this isn't the second

hundred ware That im't a ruse het according to the National Oceanic and Atmospheric Administration to a report released in late Man. MOAA sold those is an 80% chance that this supply burgicane engage will he another above-normal one. The agency predicted that there will be between 13 and 16 named storms this cases

with four to six of them devel-

Union in Biloxi, Miss., will complete a project to install satellite communications tech nology at its IATES locations by the end of tone, said Larry Mayo. Keesler's vice president of information technologies. The credit union also has deployed a converted data and

voice network that will be able to work over the satellite links. Monager the new cores couldn't handle all of Keesler's voice traffic if local telecomdown again, Mayo said, "We're making a trade-off until we get our redundant data center ourside the Gulf Coast built " he said, adding that the processing of voice and data traffic will be

collocated at the new facility The remote data center will he located either in Atlanta or Dallas, according to Mayo.

Katrina was the hundred-year storm. We'd all feel much more comfortable if some of this was in place right now. But we're crossing our fingers and hoping this isn't the second hundred years.

LYNN WITHII RSPGON, CIO AT THE OCHSWER CLINIC FOUNDATION ON THE

HEALTH CARE PROVIDER'S PLAN TO EXPAND ITS DATA REPLICATION CAPABILITIES Keesler also plans to replicate data to that facility and to two locations in the Gulf Coast region, he said. Work on the replication project began in May Officials at Intraloy LLC a maker of modular plastic conversor belts in Haraban, La. throught it was well prepared

for a disaster before Katrina struck. But they mickly "learned we had a lot of other things to do " said Stungt Smolkin, the commany's marketing strategy manager. Now Intralox has set up a satellite assembly facility in Dallas and identified workers who will go there if another

major storm threatens the New Orleans area. The com pany also has located a customer service group in Dallas to take orders. In addition, it ware and software there and set up a fail-over system for routing phone calls to Dallas "If we had to leave here, in a matter of hours we'd have all our major systems running.

The day before Katrina come exhant the IT stell at Tidewater Inc. drove two SUVs packed with an IBM AS/400 and Compaq servers from New Orleans to Houston where the company had an office with high-speed Internet access in place. Tidewater had already made plans to have its IP addresses automatically fail over, and the relocated servers more un within \$4 hours

Smollkin said

for John Chaffee TT director at Tidewater, which provides samply vessels and marine sunport services to the offshore

energy industry. Tidewater has since set up a second data center in Dal. las, spending about \$500,000 for some bandoness that were installed there and at its cristing IT facility. Data will be synchronized between head. quarters and the backup facility over a network. If another storm forces the commune out of New Orleans, "we will hardly lose a beat," Chaffee said "We should be up in Dallas within a couple of hours."

Chaffee's IT staff was testing the data replication capahilities late last month as part of its goal of finishing the work by June I. But Chaffee said the real "window of worry" is from Aug. I to Oct. I - the beight of burricane season. He isn't particularly concerned that a storm will put a buil'seve on New Orleans again. Even so, he said he doesn't plan to take any time off dur-But that wasn't good enough ing that period.

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env of the

We figured. we're down for a couple of days, no big deal. When you're down for 12 days, it becomes a big deal



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SPECIAL REPORT

continued from page 8 desktop PCs with Laptops and ensure that its network security tools can accommodate remote workers

remote workers. Blue Shoeld of Florada is also setting up a hardened data corter. Chris Gap, manager of dissaster recovers at the lackwortville-based meshed insurers, and it is hiltous, threugh a move as assembled They data confer than 'd segment of the work of the conference of the set of the conference of the confe

new facility will cost Gay said Blue Cross about months to beduce ny reliana e on tary backups by using totale from Double. Like-Software in Scorbboro Mass ery to an unspecified hot-site facility, with backup copies kept in the insurer's own data center. "Shipping tapes concerns us," he said, entine the Health Insurance Portability and Accountability Act's data privacy need to access information in the event of a major storm or

Stopgap Measures

Sloppap Measures
The Blue Crisis, the office of the clerk of the circuit cours
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"We don't feel comfortable

at all." Harden said. "If this area gets hit by a Karrina, both my data centers are potentially some and there are no data."

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a capability that she hopes

to have in place by next mouth
Alphastarf fine, a
pay roll-processing
firm in bort I andere
dide. Pla. learned
from an extended
soutage in the aftermath of Burricane
Wilma Lost year that
its disaster recovery
plan—which was
based on systems
being down for two

days — needed to take longer disruptions into account. "We figured, we're down for a comple of days, no big deal," said Jack Rahner, Alphastaff's director of FL. "When you're down for El days, it becomes a big deal, Ancillary services

become not seamellary.
For example, the compruis
hadn't replicated its Great
Plain's accounting software,
and state income and property
naves came due This year. Alphastaff is adding more capbilities to its collection facility
in Atlanta and is installing
additional equipment and apphilations there, in halfine its

accounting software.

Alphistorial also discovered

'thin net having: mail server
was a huge hindrance' to
continued operations, Rahner
said, Although a mail server at
the compuny's Atlanta facility remained up and running

after Walma, end users had touble accessing it, he added, In an effort to acced similar problems this year. Alphastaff has started using Message the facts e-mail nanogement and continuous services.

continuity Services.
Although Seammah, Cat.,
Issan't been hit by a major hurreane; in mare, than a century,
Kairma prompted the city's
Memorard Health University
Medical Center to step up its
disuster recovery efforts. The
medical center is setting up
capabilities for replicating its
electronic X-my and parkini
recovals data to a data center
in Adama, and Chris't execut.

Memorial Health's manager of technical services. She added that the replication process should begin within six weeks. Other disastee planners are also beefing up the infrastructures that support their data contents bear of systems (els-

also beefing up the infrastructures that support their datacenters power systems telephose and Internet connections pumps, and even sparetureries for cell phones and laptops. "For communication, it was impressive that we stock up on extra betteries," and Jim Deskarids, IT director for Lee County in southwest Florids, In addition IT opposition IT of the

tions such as Lee County's are making arrangements to help one another if necessary Desparlais belongs to the Florida Local Gowernment Information Systems Associations, which has 140 members Should be lose his data centers, several other counties in Florida have agreed to host his are least more. In such as are least more, he said.

Harrid Schumaker, ClO
for the city of Largue, Flat. is
working through the same
association to develop mutual IT assistance agreements
that involve leading space for
backup systems in other dash
centers. A but of the cities
there sustained optice a bit of
damage [from storms] are just
getting to the point where they
one syst though the day of the
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this stuff." he said.

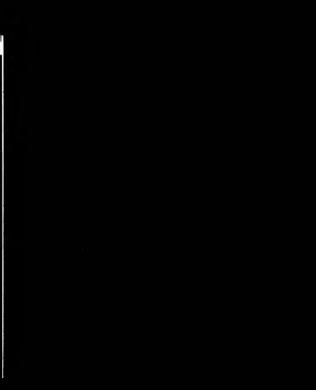
However, expended disasterrecovery planning and outside
help can only do so much in
the face of an approaching
hurrican. "Everybody's jetting a little nervous at this
time of year," Designific said. 9

Hot-Site Approach Runs Hot and Cold With Users

THE DAY AFTER HOUSE (Kg)

We don't feel comfortable at all. If this area gets hit by a Katrina, both my data centers are potentially gone, and there goes my data.

PROJECT MANAGER FOR COMPUTER OF FRATIONS OFFICE OF THE CLERK OF THE CIRCUIT COURT FOR FLORIDA SHILLSBOROUGH COUNTY



Continued from page 8 desktop PCs with laptops and ensure that its network security tools can accommodate remote workers.

Blue Cross and Blue Shield of Florida is also setting up a hardened data center. Chris Gay, manager of disaster recovery at the lacksonville-based medical insurer, said it is halfway through a move to a so-called Tier 3 data center that's designed to withstand a Category's burricane. The changeover is scheduled to be completed by the end of October, Gay said, adding that be couldn't as who wrasch the couldn't say how much the

many facilities will over Gay said Rhie Cross also is moving to rerane backuns by using tools from Double-Take Software in Southborn Mass. to mirror its serv ers to an unspecified hor-site facility, with hackson coming kent in the insurer's own data center. "Shipping tapes concerns us," he said, citing the Health Insurance Portability and Accountability Act's data privacy regulations, as well as the

need to access information in the event of a major storm or other disaster.

Stoppap Measures
Like Rise Cross, the office of
the clerk of the circuit court
for Florida's Hillsborough
County is working to upgrade
its data backup capabilities, Jeanne Harden, project
minager for computer operations in the clerk's office, said
that after seeing the damage
caused by Katrian, she realrail downtown: Tampa nor a seeoud facility II miles from the
coast would be assel for a similar
coast would be assel for a similar

storm struck.
"We don't feel comfortable

at all," Harden said. "If this area gets hit by a Katrina, both my data centers are potentially gone, and there goes my data," The clerk's office had

Tree-leve sounds charge in according to the country of the country

Alphastaff Inc., a payroll-processing firm in Fort Lauderdale, Fla., learned from an extended outage in the aftermath of Hurricane Wilma last year that its disaster recovery plan — which was based on systems

days — needed to take longer disruptions into account. "We figured, we're down for a couple of days, no big deal," said Jack Rahner, Alphassaff's director of TT. "When you're down for 12 days, it becomes a big deal. Ancillary services become not so ancillary."

For example, the company hadn't replicated its Greet Plains accounting software, and state income and property taxes came due. This year, Alphastaff is adding more capabilities to its collocation facility in Attanta and is installing additional equipment and applications there, including its

accounting software.

Alphastaff also discovered
'that not having a mail server
was a huge hindrance' to
continued operations, Rahner
said. Although a mail server at
the company's Atlanta facil-

We don't feel comfortable at all. If this area gets hit by a Katrina, both my data centers are potentially one, and there goes my data.

JEANNE HARDEN, PROJECT MANAGER FOR COMPUTER OPERATIONS, OFFICE OF THE CLERK OF THE CRICKET COURT FOR FLORICA'S HILLSBOROUSH COUNTY

after Wilma, end users had trouble accessing it, he added. In an effort to avoid similar problems this year, Alphastaff has started using MessageOne Inc's e-mail management and continuity services.

Although Swaman Ga. Although Swaman Ga. Lasarb been his by a major harricane in more than o central Kartina promped the city's Memorial Health University Medical Center to step up its disaster recovery efforts. The modical centre in setting up capabilities for replicating its electronic K-ray and patient electronic K-ray and electronic K-ray S-ray and electronic K-ray a

that the replication process should begin within six weeks. Other disaster planners are also beefing up the infrastructures that support their data centers: power systems telephone and Internet connections; among and even spare batteries for cell phones and laptops. For communication, it was imperative that we stock up on everta batteries," said this

Desjarlais, IT director for Lec County in southwest Florids. In addition, IT organizations such as Lec County's are making arrangements to help one another if necessary. Desjarlais belongs to the Florida Local Government Information Systems Associa-

tion, which has 140 members. Should he lose his data centers, several other counties in First have agreed to host his applications, he said.

for the city of Largo, Fla. is working through the same association to develop musual IT assistance agreements that levolve leasing space for backup systems in other data centers. "A lot of the cities that have sustained quite a bit of damage if from stormal are just getting to the point where they

can start looking hard at doing this stuff," he said. However, expanded disaster

recovery planning and outside belp can only do so much in the face of an approaching harricane. "Everybody's getting a little nervous at this time of year." Designals said. 8 THE DAY AFTER

Red Hat Halts Development of App Server

BY ERIC LAI

At its annual Summit user conference here last week. Red Hat Inc. disclosed plans to halt development of its Red Hot Application Server (PHAS) The move had been an-

ticinated since Red Hat in mid-April announced plans to buy open-source application server provider IRoss Inc. for about \$420 million. The compagy will support RHAS users over the life of their contracts which span one year, it said. Aaron Darcy, director of

elobal strategic services declined to disclose the number of RHAS users, but he said that they won't be rushed to migrate to IBoss, RHAS is based on the Jonas JZEE application

server from the open-source OblectWeb Consortium. Paleigh N.C.-bared Ped Hor also announced at the confer-

ence plans to create a community called 109 for doveloners seeking collaboration from open-source developers or ouidance from Red Hat engi neers. The company also said it will provide two internally developed testing tools to the open-source community and that it is revising the shipment schedule for Red Hat Enter-

prise Linux (RHF1) Red Hat said the developer Web site warm MR redbut com will be similar to rival Microsoft Corp.'s MSDN Web site for Windows developers. Although the site will best open-source code and projects, it doesn't di-

Red Hat Linux Red Her officials making a rectly compete with the Open plans to release the company's Source Technology Group's SourceForge Web site, said

Todd Barr director of enter-

Kevin Fox, a programmer

and analyst at The Chemin

ously monikered 108 - Red

reveal the origins of the site's

"I don't have a crystal hall."

what features are going to be

The \$7 billion Cleveland-

runs its Oracle databases and

supervisory control and data

based paint manufacturer

Unt expensions declined to

future rollouts of Red Hat.

prise marketing.

A Heaful Tool

stable "

sequisition applications on internal tool, called Dogtail. for testing graphical interfaces, along with a suite of tools for testine nongraphical applications One Red Hat user who

works at a Mississippi bank said his development team Williams Co., said the mysteriwould welcome the socilabil ity of open-source automated testing tools for Linux applications "We're mostly a Winname - should belp him plan dows shop, including our quality assurance team," said the user, who asked that he and he said. "I want to better know his employer not be identified. If they have to test a Linux

system they don't know what they're doing Both applications, which Red Hat uses internally to ensure that third-party applications run on its Linux distribesting will be available on too the General Public License said lay Turner, quality engi-

neering manager at Red Hat. Red Hat also disclosed plans to lengthen its release schedute for major versions of and undates to its I inux operation system, "We're slowing things Joseph to cover customers who don't want to change so often." said enterprise marketing

manager Nick Carr. For instance, starting with RHEL 5's expected release in December, major versions will come out about every two years instead of the prior 10-month intercels Carronid Red Hat will release a beta of RHEL 5, which adds virtualization canabilities, to a limited set of partners and customers at the end of July, and a public beta in mid-September.

Stan, I wish everything was as dependable as a Ricoh color printer. That's why they call it wishful thinking, Jerry,

> Ricon dependability moves your ideas forward RICOH"

lew Flaw Found in

Mindows Software A new flaw found in Microsoft Corp.'s Windows software could be eminited to cause a decial of-service attack on certain applications, although the bug isn't wed as being savers. The flam ects the Home and Profe al editions of Microsoft Wind XP Service Pack 2, and four versions of Windows Server 2003 the Datacenter, Enterprise, Stanstand and Web editions. Microsoft said that it is investigating the flaw and that it isn't aware of any

lotorola to Buy U.K. Firm for \$193M torola Inc. has agreed to buy

TTP Comm for \$163 million. TTP skno in said it place to retai the 575 employees of TTP, wh will continue to be based in Cam-

SMIC Plans \$300M

ant investment tional Corp., China's largest chip maker, plans to use a \$300 million lean from a sortium of Chinese banks to rtion conscitu at The company did not offer de nion plans for the ent, which uses 200-mill on waters to produce chi The plant upgrade is part SMIC's ort to reduce its reliance on

DRAM chip sales. **BM Unveils Tivoli** Asset-Tracking Tool M has bounched software that

ts more easily bill inters ts or external cli the resources they use. The oli Usage and Accoun

C ON THE MARK

HOT TECHNOLOGY TRENDS. NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL



Cell Phone Security Nightmare . . .

is looming. But CIOs can take actions to protect their end users. Victor Kouznetsov worries that as standards for handling mobile data become widely adopted by handset makers and cellular network operators. the security landscape for cell phone callers will be-

come as dannerous as it is being transmitted and, if postible, stored infor and ensure for PC users. Kouznetsov. a. that you can lock or erase senior vice president at the McAfee Mobile division of the data on devices if they're security software yendor lost or stolen. However, McAfee Inc. in Santa Clara Kouznetsov notes wryly that Calif., says that at least one you probably won't be able security scam has already to protect end users from the surfaced in which malacase top reasons why people lose writers combined lava and data stored on mobile devices. Short Messaging Service code ner a Swedish survey: They to trick and users into rendthrow them in a rage or flush ing messages to a for-pay SMS them down a toilet operation. In the near future.

the rapid spread of mobile

dread getting on our PCs -

the like. To keep corporate

data safe on end-user hand

sets, he advises that CIOs.

take four steps Creste

a "walled sarden," per-

approped software to

a malware detection

tool on your phones;

encrypt data that's

run on devices: install

mitting only pre-

malware that is "conceptually

similar" to what we currently

viruses, worms, soverare and

SaaS shrinks the software market . . .

... with each deal. Market research analysts may see a slowdown in overall software revenue growth as a result of IT's increasing adoption of software-as-a-service (SaaS) offerines. That's the contention of lim Howard, CEO of Los

Appeles-based Crown-Peak Technology Inc., which uses the SaaS model. Howard arrayes that with each SaaS sale, "the annual rev-



comparing the strength of SaaS vendors and traditional suppliers on the basis of their annual revenue "is not an annies-to-apples comparison' because fees from costly customization and installation of software are missing from the SanS side's balance sheets Howard says. The number of customers or end users might he a better metric for com-

parleone he odde CIOs and CEOs finally find themselves . . .

Bruce Barlag, CEO of Bal-

of 354 hirb to 20GB in size. Pricing for year, ClOs and CEOs both ranked "business strategy at your ... execution" and "IT capabilities" high on a list of 13 "too of

mind" issues Bartor says he interprets the data so mean. ing that "the CIO is in line with what the CFO is think ine." He adds that much of the blame for keeping IT and business objectives off the same track in the past resides with executives other than CIOs. "It was less a failure of the CIO than the CEO who did not articulate the strat-

egy of the business," he says,

were "compounded by other

adding that the problems

executives who did not prioritize their IT initiatives." But things are looking rosier. Barhe gave thecame IT is now aligned with the business." Let's hone.

Don't clog your corporate e-mail . . .

... system with large Mes. "The problem of sending big files is bigger than you think," says lungen Edholm, CEO of Accellion Inc. in Palo Alto, Calif. Indeed, many Internet service providers refuse to handle files that are over 10MB. But Edholm says end users can transmit huge files via Accellion's Courier Secure File



Transfer Appliance, which is being upgraded this week with a Version 5.0 software release. Users can store files and even entire folders on a Courier appliance and then send messages with built-in links so recipients can download the information. With the software update, Courier can handle folders that are up

the appliance starts at \$3,500. Take a good look

siness data, With so much data for analysts to sort through, they need "a living, breatbing picture on top of a database," says Keyio Brown. vice president of marketing at Tableau Software Inc. in Seattle, Tableau's enonymous visual analytics tool connects to a variety of data sources and lets users draw and drop data elements to a worksheet, where they are instantly rendered into charts, eraphs and other visual representations Version 2.0 ships next week.

Pricing starts at \$999.

... on the same strategy pa

anced Store card Collabprotion Inc. a division of Pal-Indium Group Inc in Lincoln Mass. draws that conclusion from a survey level executives that his firm commissioned earlier this

Challenge #1:

Teach everyone how to innovate with IT.

Solution

Hyperion — your management system for the global enterprise.

Technology drives innovation. That makes you Chiff monestion offlices So, how do you transform innovation from a buzuwed into a sustainable part of your business? Virinary ClOs are Leading the way with typerrion performance management solutions. With hyperion, you beek down the barrier between finance, operation, and IT and align them around a master data set. You give everyone the tools they need to continuously analyse and manage business performance—and invent new you to improve it. In best that the control of the co FREE ARTICLE FROM HARVARD BUSINESS REVIEW

Hyperion



CA Delays Issuing OA Full-Year Results

CA Inc. has delayed issuing it final fourth-cuarter and 2000 full-year results and restated its third-marter results, parth because of the impact of its The more was not expected by analysts. CA said it may have to further adjust its third- and fourth-reserver results as well as its believes results, recoding an on internal review into the

les commission plan. licrosoft Solits Sinofsky's Duties

resoft Corp. has created two sts that split the duties of Ste von Sinefsky, the former head of its Office engineering team o now leads the Windows unit ine Lebland was named rate vice president of the ne Office productivity applica-res group. Kert DelBene was d conservate vice presi rm group, which builds arePoint, Project, Greave and

4D Seeks to Protect C Vendors' Secrets

ed Micro Devices Inc. as asked a Delaware judge to rotect the trade secrets of PC lors so they can testify in e company's long-running an st lawsuit against Intel Corp The move is part of a June 2005 lawsuit in which AMD claims na sRS microprocess

riest share to keep coers from buying AMO chi CollabNet May Open ts Source Code

shilled Inc. is considering ther to got some of its core ent software under an were Scoons or a dust a model to boost its narket share, said President and CEO Bill Portolii. Though wouldn't discuss firm plans

Ruiz: Chip Advances Not Held Back by Technology

sion to throw all our energy

company in the world doing

that. We also made a decision

with customers was roing to

afford to kind of play around

answer to how we

can compete with

The other side of that

to innovation? I think

panies competing will

nt reasonably go on the x86

itform? Quadcore chips are

are expected later on this war Frankly. I believe they

our competitor has.

the customers' throats our

into x86. There is no other

But AMD's CFO sees increasing need to balance performance, power usage

----THE AWARDS OFF emony for the 2006 Computerworld Honors Program is being held tonight in Wash-

ington. Each year, the program recognizes organizations for using technology to promote social, economic or educarional advancements. In addition individual awards are viven to an IT user and vendor The winner of the 2006 Morean Stanley Leadership Award for Global Commerce is Hoster Baix

chairman and CEO of Advanced Micro Devices Inc. Ruiz, who was recently appointed to the President's Council of Advi sors for Science and Technology, spoke with Computerworld in advance of the ceremony. Excerpts follow:

would not be doing that if we had not been be encouraged Analysts say AMO's success wi teren will help ensure coreitive pricing and accelerate the pace of irrecvation in the chip tive with intel on inchnology? First

of all we're a really focused

How far can multicere de expected, and eight-core ones later on. It really will be driven

by what the customers will company, and we made a decibenefit from We're going to VMware to Unveil Upgrades, Bundles er as a separate product.

VMware Inc. today is expected to unveil bundles of several upgraded server and software products that change how the company packages its virtualization tools. Among the ungrades in the new VMware Infrastructure 3 suite is support for four-processor

The announcement of the new offerings, which have been in beta-test mode since last October marks the end of VMware's high-end ESX Serv-

VMware will offer several packages, ranging from an ESX Server and a VirtualCenter agent priced at \$1,000 to a \$5,750 suite that includes most of the company's offerings. Raghu Raghuram, vice at the EMC Core, subsidiary,

It will instead be part of

ture 3 suites.

multiple VMware Infrastruc-

president of platform products said most VMware users have breaks the server and man accment tools together.

demonstrate, along with our competitors, that four cores is a done deal and eight cores is not a technology challenge Technically speaking, frankly, I don't see why you couldn't nut 100 cores on a chin.

a few years back that intimacy a huge issue in data centers. At be critical to us for leveraging R&D effectively. We couldn't some point, do you see users making trade-offs and hope we could cram down between the performance great ideas I think that is the microprocessors? I most definitely do People are going to want to op timize the balance be-10% of the money that tween performance and nower consumption to I think performance

[question] - will it lead per watt will become a much having two strong commore meaningful metric than just raw performance or lead to significantly better inone-core power consumption novation. Intel has announced some improved products (that

Do you see virtualization as a po tential threat to how you differentiate your products? I see virtualization as a great opportunity for us as well as for the customers. Today, when we have the possibility of putting in the data center or in the back office this have canability on clusters of computing power, and at very low cost and very

low energy consumption, then

The systems also unorade

memory support from 3.6GB

to I6GB, which is Important

to Edward Baldwin, sensor

Energy Co. in Houston, a

products

network engineer at Enbridge

beta-test site for the upgraded

date physical servers just over

a year and a half ago, reducing

45 physical servers to 10 physi

machines in production.

processor and memory sup

port will allow him to shift

Oracle and SQL databases

cal servers running 120 virtual

Baldwin said the increased

He used VMware to consoli-

it really onens up the possibility - because of virtualization - to have a much more intellicent deployment of clients that will also optimize performance per watt. Because of the more centralized nature of that approach, you can have much better control over cost.

security and a number of other

What would you like to an as part of the President's Council of Advisors for Science and Tech nelegy? The field of opportuni ty is so big that it's a challenge requeb just to decide what do

we focus on it has so be focused; otherwise, it sets to be a giant disand technology. What we've chosen to do so for is to really forme on trying to anticipate the seconds in columns and technology and provide the president with

come understanding of the priorities that we think this country needs to have to ensure a long-term competitive position. It's not addressing a specific technology.

lity of the U.S. to maintain

rabio in technology and b nith; research? The biggers concern I have has to do with education. It is one of the most if not the most, significant challenges that we have to address: the educational shortcomings that we have in this country.

running on dedicated four-way processor systems to a virtual environment. The upgrades also offer the opportunity to tion. "Users never see downtime, and it's allowed us to do maintenance in the middle of the day" instead of at night or over the weekend, he said. Brad Day, an analyst at Forcustomers want an integrated package. "When most people

use management tools to move live applications to a different physical box without interruprester Research Inc., said most

buy VMware, they are buying

the whole stack," he said.

California Election to Provide E-voting Paper Trail

First vote requiring | voters using optical scan compliance with new state law

BY MARC L. BONDINI California tomorrow will become one of the first states to require that all voting machines produce a paper audit trail that can verify the accu-

racy of a tally. The audit trail is required for Tuesday's primary vote to ensure that election officials adhere to a state law passed in 2005. The statute requires that the ballots of 1% of the votes cast in each precinct be manually tallied to ensure the accuracy of e-voting systems. The new law expands on an

earlier statute that requires

devices to also register their votes on paper so they can be audited. Now, all machines, including touch-screen systems must compile a paper trail of votes

A spokeswoman for Califor nia Secretary of State Bruce McPherson said that 37 of the state's 58 counties use touch-*Every voting system in California will have a paper

trail in 2006," the spokeswoman said. "Voters will have the opportunity to verify their vote via a paper record, which verifies that their vote cast was indeed the vote that was

As California has moved to implement the new law.

it has also been working to comply with the federal Help quires the establishment of a statewide voter registration database and that every voting precinct have a handicappedaccessible e-voting system.

These are sizeable mandates and it is no easy task, but it is also a duty we do not take lightly." McPherson's snokeswoman said San Diego County already successfully completed an election - a special election held on April 11 - with a paper

trail for every vote cost said Mikel Haas, registrar of voters. Haas noted that the statute doesn't require that voters

receive personal paper confirmation of their vote. It only re-

quires that a printed record be retained in the voting machine for our to so dies The latest California effort is placating some critics of

e-voting, who have argued that touch-screen technology is open to tampering and fraud. "California's June primary ushers in a new era of accountability and transpar ency in state elections" said Kim Alexander, president and founder of the California Votes

Foundation, a nonprofit voting technology advocacy group. in a statement last month. *Election officials rely on proprietary software produced by private companies to count

the votes," and a naner trail can ensure that election audits are possible, said Alexander.

Others, like Brad Friedman. whose BradBlog com Web size covers electronic voting issues. say the California measure remains tou weak Friedman describes the mulit of the of precincts as a "ridiculously"

small sample. "I think it's clear that paper trails are the absolute mini mum requirement for valid this point," he said. California state Sen. Debra Bowen a Democrat who is running in a primary election for the right to take on McPherson, a Republican, for the secretary of state post, agreed that the new audit requirements remain inadequate For example, some counties aren't including absentee hallors in the manual wate requirement, which she called a "buse loophole." 9

Stan, how do you keen those Ricoh printers so dependable?



RICOH



StarOffice Gets Hit

The first your affection Star

Office was detected last week

had assessed a new third on four th

isn't being used to infect com-

restore. Konnersky I ab said the

virus uses macros to attack the

nusts. The heat does not yet nose

Sun Microsystems Inc. office.

a threat space of it a prophed

was written to record it could

work but is not yet being used

malicinusts. Kaspersky said.

Symantec Patches

Symantec Corp. has patched

a widely reported flaw in the

Finalish versions of its corporate

activisms colleges. The flow could

be exploited by hackers to run un-

PCs. The problem affects Versions

and Versions 10 and above of Anti-

Microsoft R&D Plans

Amer has defended the soft

3.0 and above of Client Security.

virus Corporate Edition.

Rallmer Defends

Microsoft Corp. CEO Steve

pay off in the long term.

rized software on ungatched

Software Flaw

concept virus, meaning that it

With First Virus

colures and recommending

to attition to brimging in

Romley, Nicholson said he has

set on a task force of senior VA

officials to perhausall menera-

of outcomes on country of the

mency One of its first jobs

face to be commissed by from

who require sevess to sensi-

bo is an Assument all muchon

tion for To bearingthe measure.

Nicholson ordered all supervi-

over at the VA to column liers

of their rubordinator who can

include details such as the nea-

come unber (adject-basel secondorn-

ways to improve them

Continued from page 1 VA Security

ans discharged since 1975. The that took of seven Min 3 had Nacholson wasn't rold of it for neath two works, and the VA to be't mubble by disclose the breach until May 22. Security analysts last week

and then your Nacheleon's actions as a broad sign of the importance that the VA is as community information section rity following the breach. But they anestraned the otheres of same of the steps he has taken

For instance, the choice of former Arizona county properties Richard Burnley for the special adviser's role that Nicholson has created is something of a surveise viven Romley's legal background. search at the SANS Institute an I'l security and training firm in Betheyda, Md.

"If you're poing to change security, bring in a security person "Paller said "It doesn't make sense to bring in a pros ecunor unless you've decided that the people you're working

with my ill criminals." processes and changing personnel see unlikely to make

nongrafit organization that ad-

mmesters student loans, last week

appropried that an outside IT con-

tractor had lost an unspecified piece

of equipment containing the names

and Security numbers of an-

ware vendor's plan to boost its rch and development budget by \$2.6 billion next year - a move that Wall Street analysts fear will JUST DAYS after the VA disclosed lower its earnings potential and its data compromise, two other result in lower returns to shareholders. Ballmer told analysts at organizations reported similar inthe Sanford C. Bernstein Strate cidents - the latest role long line gic Decisions Conference in New of security beserves, that have red personal information at risk. York that Microsoft has proved in the past that such envestments Texas Guaranteed Student Loan Corn a Round Rock Texas-based

Oracle Buys Mass. Software Vendor Oracle Corp. has agreed to buy Demantra Inc., a maker of ess applications, Terms of the deal, expected to close later this month, weren't dis

proximately 1.3 million borrowers. The loss was recorded to the company on May 26 by Humming closed, Waltham, Mass,-based bird Ltd., a Toronto-based software Demantra's product line include wander that had been board by Trees analytics tools that help large Busynteed to develop a document esses ferecast demand to management system. their products, as well as ap-Krishn Boyer, a spok plications for planning sales and for Texas Guaranteed, said the core

a big difference at the VA if the agency doesn't devote adoquate funding to security initiatives, said David bordan chet information security other for the seweroment of Virginia's Arlington County

My puess is somewhere security other who said. We modern concerns Office and this is the way we can do it? and he never got the funding to do it." lordan said, "It's in concervable to me to think that in information socurity of neer in a federal agency of this prestige wouldn't have known what to do" to prevent the kind

of breach that the VA suffered Ongoing Issues

Cortner Inc. analyst John Percuture noted that the VA appears to have had lottestanding security problems. considering that the agency has received failing grades on four of the rost five computer security report curds issued annually by the House Com-"Somebady should certainly get the blame for this," Pescatore said. "But when you've

had problems for such a lone

time, you can never be sure if

security reactions by encryption all

the information before transmitting

then unescripted by a Hummorobin

employee and stored on equipment

Hummingbird CEO Barry Litwin

refused to discisse the type of me-

dia the information was stored on or

how it was lost. But he said that the

data had been password-protected

at multiple levels, making it all but

ers. "We believe that the chance of

ambody actually cetting at the data

Mannahia Saront Heart I Inaus

sty in Farteid, Conn., announced

May 24 that one of its computers.

had been hacked, resulting in the

potretal compromise of the names.

ineccessible to uneuthorized us-

is minimal." Litwin said.

that appears to have been lost

il to Hummingbird. The data was

right ones."

Sover said

served in the Marine Correin Vietnam and was the Maricore County Attorney in Aricome form topo to 2004 will report directly to Nichalson the people you're firing are the at the VA. He is responsible for evaluating its security pro-

named a critical contriduce

and procedures. Romicy, who

Loan Firm. University Report Security Breaches

addresses and Social Security numbers of 135,000 alumn and prospective students

The breach was discovered on May 8, when the university's IT staff noticed "an anomaly" during its daily system maintenance work said Funds Ain, a spokenwomen for Secred Heart, A rootket program instated on the server - apparently by as cutride attacher - caused one of the computing services running on that system to grash. Ale said. Pelennary prestrutions

showed that the attacker account to have the expertise to access the eformation stored on the server although Alp said it isn't clear if that actually happened. In addition to the personal data, the commonwed server contained credit card infor maters for \$13 and 64 also she and

- JANGSWAR VLIAYAN

Security Fixes

V& Secretary R. James Nichol All emp mired to sion a statement the agency's security training

lists detailing the jobs of workers who access sen The agency has begun

implementing the proce duras necessary to dismiss the data analyst oh

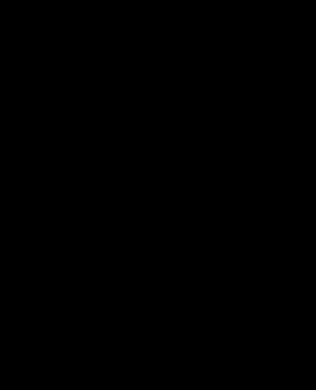
need to see data and the methade by which they access it Am nuclear of information security practices at the VA should examine why the agency still doesn't mandage that westing data be encrypted by end users, said Howard Schmidt a former White special advisor Ramby "will House exhersecurity advisor and corporate chief security perspective" as the VA works to reform its security policies

cofficient tellus mont le un lendomen. dent consultant in Scattle "These sort of compromises are going to happen no matter what you do ut what policies you have in place," Schmidt said. So any change that fails to include mandatory energy-

tion of consition data is less than complete, he added. In another development, 30 organizations that are part of Health Privacy called for Mike Lemitt comptant of the U.S. Department of Health and Human Services, to order a review of the VA's compliance with the privacy mandates of the Health Insurance Portability and Accountability Act. Meanwhile the House Com mittee on Government Reform asked the VA to provide it with an undate on the progress of

the agency's security reforms at a hearing that is scheduled to be held on Thursday, P. Correction

The coverage of Computerworks's Mobile & Wireless World confer ence in last week's News section omitted a credit for the photos that ran with the stories. The oho too were taken by Marc Austre



cedures and recommending

In addition to bringing in

want to impose them

StarOffice Gets Hit With First Virus

The first virus effection Star Office was detected last week but experts say that so far it ion't being used to infect com puters. Kaspersky Lab said the us uses macros to attack the neveters inc. office suite. The bun does not yet nos a threat, since it is a proof-ofcent virus, meaning that if was written to prove it could work but is not yet being used aliciounty, Kasparsky said.

vmantec Patches oftware Flaw

antec Corp. has pat v reported flaw in the sh versions of its corpor rus software. The flow could be exploited by hackers to run un ized software on ure PCs. The problem affects Ve 3.0 and above of Client Securi and Versions 10 and above of Antiricus Corporate Edition.

limer Defends crosoft R&D Plans

osoft Corp. CEO Steve limer has deferred the soft ware vendor's plan to boost its th and development bu by \$2.6 billion next year - a move that Wall Street analysts lear wi suff in lower returns to share ers. Ballmer told analysts at the Sanford C. Bernstein St air Decisions Conference in New fork that Microsoft has proved in the past that such in-

per off in the long term. Oracle Buys Mass. Software Vendor

scie Corp. has acreed to uy Demantra Inc., a maker e of the deal, expected to close this month, woron't distools that help large

Continued from page I **VA Security**

ans discharged since 1975. The their took place on May 3 but Nicholson wasn't told of it for nearly two weeks, and the VA didn't publishy disclose the

benach until May 22 Security analysts last week earl they view Nicholson's actions as a broad sign of the importance that the VA is assigning to information security following the breach. But they questioned the efficacy of some of the steps he has taken.

For instance, the choice of former Arizona county prosecutor Richard Romley for the special adviser's role that Nicholson has created is sumething of a surprise given Romley's legal background. said Alan Paller, director of research at the SANS Institute so I'l' escurity and training

firm in Bethesda, Md. "If you're poing to change security, bring in a security person," Paller said, "It doesn't make sense to bring in a nonsacutor unless von've decided that the people you're working with are all criminals" Reviewing internal security processes and changing personnel are unlikely to make

a his difference at the VA if the agency doesn't devote adequate funding to security initiatings and David lorden officer for the government of

Virginia's Arlington County My guess is somewhere down in the dirt at the VA is a security officer who said 'We need to secure our DCs and this is the way we can do it." and he never not the funding to do it," Jordan said. "It's inconceivable to me to think that an information security of ficer in a federal agency of this prestice wouldn't have known

what to do" to present the kind of breach that the VA suffered. Ongoing Issues Gartner Inc. analyst John Pescatore noted that the VA appears to have had longstanding security problems.

considering that the agency has received failing grades on four of the past five computer security report cards issued annually by the House Committee on Government Reform "Somebody should certainly get the blame for this," Pescatore said, "But when you've had problems for such a lone time, you can never be sure if

the people you're firing are the

Security Fixes

Romley Nicholson said he has net up a tack force of senior VA officials to review all aspects of information security at the anency One of its first jobs due to be completed by June 30, is to document all workers who require screes to sensitive data. To begin the process. Nicholson ordered all supervisore at the VA to submit lists of their subordinates who can access such information and to include details such as the reacone who individual workers need to see data and the meth-

Nicholson said that as a special adviser Romley "will provide a critical outsider's perspective" as the VA works to reform its security policies and procedures. Romley, who served in the Marine Corns in Vietnam and was the Marizona from 1989 to 2004, will report directly to Nicholson

at the VA. He is responsible

for evaluating its security pro

ade by which they scress it Any review of information security practices at the VA should examine why the agency still doesn't mandate that sensitive data be encrypted by end users, said Howard Schmidt, a former White House exhersecurity advises and corporate chief security officer who now is an indepen dent consultant in Seattle.

are going to happeo no matter what you do or what policies you have in place," Schmidt said. So any change that fails to include mandatory encryotion of consisting data is less than complete, he added.

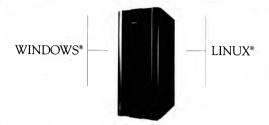
In another development 30 organizations that are part of the Consumer Coalition for Health Privacy called for Mike Length secretary of the H.S. Department of Health and Human Services, to order a review of the VA's compliance with the privacy mandates of the Health Insurance Portability and Accountability Act. Meanwhile, the House Committee on Government Reform asked the VA to provide it with an update on the progress of the agency's security reforms at a hearing that is scheduled to be held on Thursday 8

Loan Firm. University Report Security Br

right ones."

Correction

ed a credit for the on



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applications, PRIMEQUEST servers harness the power and performance of up to 32 Intel[®] Itanum[®] 2 Processors, to easily accommodate your largest to easily accommodate your largested populations. They are designed with magnated networking and management features for smplicity and offer feedable 100 and partitioning that enhances your agifty to respond to dynamic business requirements.

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GLOBAL

U.S., Europe 'Certain' of Continued Data Sharing

UROPFAN and U.S. officials loss week downloved fears that air-Nine flights from Europe to the U.S. might be dispursed at the end of Semember, when an agreement on the sharing of personal data about nassenners is scheduled to expire as the result

of a new court order. The European Court of Instice in Luxemboure ruled that the 2-war-old agreement to share with American authorizing information about necessary flying to the U.S. is illegal. However, it temporarily left the agreement in place. giving the European Commission and the 25 member countries of the Foronean Union until Sept. 30 to come up with another solution with the U.S.

"We need continuity," said Franco Frattini, the European commissioner for justice and home affairs. Frattini added that he is "contain" on sensement can be reached to avert a crisis in trans-

Atlantic travel. "I am confident that we will find a solution that will keep the data flowing and the planes flying " agreed Stewart Baker, an assistant secretary at the U.S. Department of Homeland Security

Despite those assurances, resolving the matter "is not an easy situation," said Chris Kaner, a lawyer io the Brussels office of Hunton & Williams LLP who focuses on data protection issues "The court decision throws everything

up for re-examination The May 2004 agreement to share names, addresses, travel schedules and other passenger records was signed in remones to the Sent II 2000 terrorist attacks in the U.S. But the European Parliament opposed the part and appealed to the Court of Justice, arguing that the U.S. doesn't have data protection rules that are equivalent to the

■ PAUR MELLER IDG NEWS SERVICE

Loss at Vodafone Leads To Layoffs, IT Changes

---DAFONE GROUP PLC last week reported a massive loss for the fiscal year that ended March 31 and aonounced restructuring plans that include an overhaul of its IT organization. Nonetheless, the company said

An International IT News Digest

its business operations continue to perform well The loss did prompt the mobile

network operator to make moves to cut costs, including plans to eliminate about 400 jobs at its corporate headquarters here mostly in marketing Voda form amploare about 60 000 work.

ers worldwide. The commons also said it plans to controlling its ET operations in order to reduce the number of its data centers and consolidate systems administration activities In addition it expects to

to locations with cheaper labor costs Vodafone's facul-year net loss of \$17.2 Killiam \$522.2 Killiam \$1.5 Aimshod. ed one-time charges of £23.5 hillion (\$44 hillion) from write-downs that radional the access when of business onerations in several countries. The comnamy said revenue increased 10% year

own want to \$20.4 billion (\$65.1 billion). ■ NAMEY GONERING ING NEWS SERVICE China Fnacts Internet Copyright Regulations

NTERNET PIRATES will face fines of up to 100 000 renminhi (\$12 500 U.S.) for unauthorized use of copyrighted material on the Internet under

new Chinese regulations Starting July L uploading or downloading convrighted material from the Internet will require the copyright holder's permission the state-run Xinhon News Agency reported last week. The new resu-

lations also ban the use. production or importation of devices canable of evadine convrietes 11.S. industry group

such as the Business Software Alli ance the Motion Picture Association of America and the Decording Industry Association of America have long pressured the Chinese government to improve its record on fighting the use of pirated software and media.

However, "there is serious question as to whether the government will be able to enforce [the regulations] in any meaningful way," said David Wolf. CEO of Beijing-based consulting firm Wolf Group Asia

■ STEVEN SCHWANKERT. IDG NEWS SERVICE | Compiled by Mike Bucken.

Data Thieves Target German Speakers

PAM F-MAIL containing a possword-stealing Trojan horse pro-German-language pitch that claimed that an attached file was an official undate to Microsoft Corn's Windows The attached malware is a Trojan called Sinowal that was first detected last December said Roel Schooners

here, a senior research engineer at antivirus software developer Kaspersky I sh in Moscow The mulicious code is programmed to try to harvest nearname and password information for certain hanking Web sites in Europe

Schouwenberg described Sinowal as a type of "man-in-the-middle" malware. He said that some if an end over starts a Secure Sockets Laver transaction with a bank, the Troiso can inorr HTML code that causes a pop-up window to open that asks for a username and password

■ JEREMY KIRK JOB NEWS SERVICE Singapore to Upgrade, Unify E-goy Systems

INGAPORE OFFICIALS last work concurred plans to spend 2 hillion Singapore dollars (\$1.3 billion U.S.) to overhaul the country's e-government systems in order to provide citizens with easier GLOBAL FACT online access to services

and data Government arencles in Singapore already offer most of their services over the Internet But

bundling information and services at the front end to re-engineering processes at the back end" said Raymond Lim nance and foreign affairs.

Percentage of the U.K 's.

The five-year improvement plan, called iGov2010, will integrate systems to provide access to most data via a single Web site, according to Lim-He said the plao will also improve online access for users without personal Internet access by increasing from

five to 25 the number of CitizenConnect centers, which offer free Internet norms and assistance SUMMER LEWON, IDG NEWS SERVICE

Briefly Noted

rea and Hong Kong. Dell's other Chi se plant, also located in XI ne that are sold

B OTEVEN OF UNIVERSEDT ING NEWS SEDUME

---------The Talures Samiranductor Indestry Association said that chip sales by Talwanese vendors clim % in this waar's first coarter to 307 billion New Talwa (\$9.6 billion U.S.), Chi (\$7.5 billion) in the same period in year, according to the trade group

II DAN NYSTEDT IDG HEWS SERVICE ------Accenture Ltd. last week an neunced the opening of a facility in Warsaw that will offer hosiness pre-oss outsearcing services in more than a decon European languages. das men

said the BPO center will

■ NANCY BOHRING IDG NEWS SERVICE

---------Philippine Long Distance Tale shone Co. in Makati City said it has acquired How York-hased SPI Technologies Inc. as part of an effort to became the largest provis es in 1980 ed its bea

York last year **COMPUTERWORLD PHILIPPINES** ------

Tata Consultancy Services Ltd will offer a program to help busi-nesses migrate to SAP A6's Web based applications, under an agr

II JOHN REAL IDS NEWS SERVICE

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Tivoli Chief Expects CM Databases to Cut IT Costs

IBM last week started shipping its Change and Configuration Management Database, alone with three Process Manager tools. In an interview with Commuterworld



late last month Al Zollar, general manager for IBM's Tivoli software unit, talked about the upcomine releases and IRM's long-term management soft-

How can the new products case the job of IT managers? The

specifics in the announcements are important to the IT management vision which is about being able to improve the quality, efficiency and service-level attributes of systems, as well as improving labor productivity and auto-

What is the core value of these products to IT managers? We estimate, through data from IDC, that \$30 billion worldwide will be spent on software for infrastructure management in 2008. The labor reonired for IT operations will be about \$325 hillion globally at the same time. So this is a his area in IT that requires any tomation. We see the ratio of labor to assets as extreme.

rounded the technol The CMDB is an important integration concept When we looked at this, we saw this as a master data-management

nroblem But in a major system, the data on the configuration of an infrastructure exists in many repositories, really in maybe hundreds of repositories. So we've talked about a federated database approach.

Do all vendors and users have to agree on this approach to make it work? We are working on sending a specification to a standards organization to

allow federation of configuration data. We are working fwith several vendors to createl a new interpeerability

toman to follower and soone information from multivendor IT infrastructures.

What are ISN's long-term plans

for management software? We have been talking about autonomic computing for the past five years. It's about how the technology should be self-managing, Also, you

vice delivery function — the IT operations group - to be autonomic and to run on butiness goals and policies in support of the business service. Deople have really reprovied to this b



NFWS

DY MATT HAMBLEN

Francisco area, where patients sneak 35 different languages. Videona-francischer ber bereit ed the efficiency of speech and Three months ago, the two language interpreters at two public hospitals in the San

and San Francisco General Hospital — began work on a \$1.5 million initiative known hospitals - Alameda County as the Video Medical Interpre-Medical Center in Oakland tation (VMI) Project to link

their respective exceems in onder to improve efficiency and reduce costs.

More than half of the patients at both hospital systems have limited English proficiency, so the health

care centers employ in-house interpreters to translate doctors' orders and medication rosimone. Trial videoconference com-

munications between facilities run by the two hospitals, at distances of up to 50 miles. have started in recent weeks officials said. "The initial findings are encouraging," said Bruce Occess a project consulrant at the Health Access Foundation in Oakland which is working on the project

Savings Expected

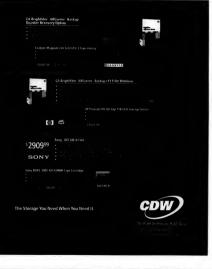
Gloria Orme a registered nurse and director of operations, primary care, noticed advocacy and interpreter services at San Francisco General, estimated that the two hospitals combined save at least \$420,000 annually in personnel costs with the cur-

rent system. San Francisco General installed its videoconferencing

system last year she said The Alameda hospital system began installing its videoconferencing system in 2003, with networking gear. videoconferencing cameras and monitors set up in several facilities. That project cut the average time an interpreter spends with patients from 37 minutes to 17 minutes, said Janice Chip, director of interpretation services at Alameda and program manager for the VMI Project, Previously, interpreters had to drive from a base facility to Alameda hospital buildings. Chin said.

Although there were some initial doubts, several of the interpreters have said the system has improved their jobs. "When I first heard of VML I said, 'Oh my God,' but I was surprised the very first time and [saw] this [system] is only a monitor," said Maria Barains. a speech interpreter at San Francisco General, "Patients are not afraid and quickly

adant." The systems in both hospitals use Cisco Systems Inc. routers, switches and IP phones, and Tandberg 1000 MXP videoconferencing systems from Tandberg ASA in Lysaker, Norway.



DON TENNANT

Veterans Affair

RDINARILY. I'm not bothered by letters from readers who lambaste me for something I've written or for something else that's appeared in Computerworld. I am a firm believer that the spark of truth comes from the clash of differing opinions, so I highly value any opinion a reader expresses, regard-

less of what he says or how he says it. I appreciate those letters way too much to be bothered by them.

I have to admit, however, that a letter I received from a reader last week did trouble me

The letter was in response to the editorial cartoon we ran in lost week's issue, which was inspired by our lead story on page I about the massive data theft suffered by the U.S. Department of Veterans Affairs. The cartoon showed the Tomb of the Unknowns at Arlington National Cemetery with the caption. "The only vets not

worried about identity theft." "I was shocked to come across a cartoon making light of the VA security breach by using the Tomb of the Unknown Soldier," the reader wrote. "Our war veterans, especially those who made the ultimate sacrifice, deserve much much better. To print this tasteless attempt at humor [at] all is shameful, and to print it on Memorial Day itself is beyond

the pale." This is the only letter I received that expressed that view but I was bothered by it simply because I'm concerned that there are other readers who didn't write but who also feel that the cartoon was a disservice to our veterans. So it is important to me that the matter be publicly addressed. As I explained in my response

to the reader, the cartoon was not intended to be at all humorous. Editorial cartoons are illustrations that provide commentary on a particular issue. Humor is often used to convey the message usually with some sort of visual metaphor. But the really polymant ones aren't funny. They may be witty or satisfical but they don't aim to make you burch It's essential that any readers who saw the

cartoon or distantaful

understand that the

responsibility for its

appearance in Comput

enworld ultimately rests with me. That being the case, I'm compelled to share some information about my own background to help explain why I approved the cartoon for publication.

My dad devoted his entire career to the U.S. Army. He served in Okinawa and was buried with full military bonors in a national cemetery in Alabama. As I write this, my sone an officer in the U.S. Navy is deployed on a destroyer in harm's way Learned in harm's way in the II C Air Force 1 was honored to receive the Air Medal twice for "meritorious achievement while participating in aerial flight" during the Vietnam War. And yes, I am amone the 26.5 million veterans whose personal information was stolen.

This entire matter is one I personally take quite seriously, so it frankly pever occurred to me that the cartoon would be construed by anyone as an "attempt at humor" I feel strongly that what was denicted in

the cartoon was respectful of our veterans. I believe my dad would soree That said, the writer of that letter and I do share one overarching sentiment. As far as I'm concerned. no matter what we do, or how poorly or well we do it, our veterans still deserve much much better. That, in fact, is the message the cartoon was

meant to convey.



MICHAEL H. HUGOS

The Robust 80% Solution

EVE BEEN doing this agility training for a couple of months now Training is fine but the reason you're here is to make it harmen in the real world. So let's have a postmission debriefing on an

actual agility mission I just completed. Listen up. There's a test at the end I was working with a nationwide restaurant chain. It needed to improve its supply chain, which delivers millions of dollars' worth of food products to its restaurants every day. Its regular IT organization had its hands full keeping current systems running and didn't have any extra bandwidth

for other projects. The company turned to the Agility Corps and asked if we could get something done fast. They gave us just a few weeks and a budget so small

you could almost slin. it past a sharp-eyed ative expense report. This was an oppoor tunity to show what the Agality Corps

could do - a bighvisibility mission with hardly any time or money Sound like fun? If it does, you're in the right place. You miche have a real relent for agility. The goal was to

increase sales and reduce costs by better matching inven tory with demand. The company has a hig opportunity to increase sales if it has enough products where they are selling well. And it can reduce

costs if it can avoid having excess products where they don't sell so well. In addition to yours truly, the agility team consisted of a senior system designer, a senior planner and a business analyst, the latter two provided by the company. I had expertise in joint application design and process mapping. My senior system designer was a master of data modeling, system prototyping and object-oriented programming. The two team mem-



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NTEL AND CINGULAR WIRELESS are proud to once again co-sponsor the special supplement profiling the winners of Computerworld's 'Beel Practices

ness of Computerwords's Tees Practices in Mohife & Wirekes's Awards Program This year's monovations stand out as business focused technology foxaders who used treal time mobile and wiredess technology to create langible, measurable business swill be fourseful they also business with these success sories will integrire others to assume leadership in their industries by forging wireless links among their emiliary of the contractions of the contraction of the contract

players, systems, assets and customers. As we have seen with past Beet Practices awards, the 2006 winners represent a venery of industries. Each office proof that the use of mobility and wireless data continues to expand beyond traditional e-mail, messaging, departmental functions and field service applications. These companies have transformed business models and streamlined core business process while unlocking access to data and

enhancing the value of business information within their organi-



zations and electropises. Organizations are deploying these contemprises. Organizations are deploying these solutions because NO1s achievable, the opportunity for market differentiation is real and the cost of falling behind is prohibitive. Not only are mobile and wireless solutions value (as seen in the examples to follow), but there is a competitive advantage for those who use them wisely and creatively. The only limit is your, magnitation and com-

mitment.

To all readers of this special supplement, we encourage you to consider the advantages of wneless mobility today whe betieve that, like the attendees of Computerworld's Mobile & Wireless World conference, you will conclude that there is a passion for feet prac-

tices" and tremendous pride associated with being recognized for successful IT

implementations. Congratulations to Award recipients and those recognized as femilies in this year's program. Thank you to all the year's program. Thank you to all the professionals, public relations firms agencies and others who participated in the program by submitting a record unither of case studies for evaluation. We also acknowledge and estend special thanks to the industry leaders, experts and practitioners who served as yudges, and who had the disturbing to





Jeff Bradley
Wor President, Business Date Services
Business Markets Croup

12 n. DD

John N Johnson Vice President & CIO

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TRANSFORMING THE "BRICK AND MORTAR" ENTERPRISE

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TOM SWIFT EXECUTIVE VICE PRESIDENT OF FIELD TECHNOLOGY, PRIMERICA ANCIAL SERVICES



DOINEDUCA EINANCIAL GERMATE A subsidiary of Citigroup, Inc., is the largest financial services marketing organization in North America, with more than 100,000 licensed independent agents They provide more than six million clients with financial products and services, such as term life insurance, mutual funds variable annuities, loans and long term

care more ance With such a large, geographically dispersed and mobile field sales force. Primerica was in need of a solution to automate the writing and processing of between 30,000 and 35,000 life insurance ambications monthly

MONTHLY CRUNCH TIME With up to 60 percent of applications pounge in the last week of each month. processing the high volume of paner work had become time-consuming and challenging, both for the agents in the field and the clencal staff in the comorate office. A

PRIMERICA. significant percentage of submitted applications contained errors and incomplete informa tion. Correcting the deficencies traused outbound calls between corporate the field avents, and the customer, a process that sometimes took days, or even weeks, before an application could be corrected and fully processed

Primerica needed to find a solution to ensure it delivered better, more efficient and timely services to its customers. Tom Swift. Executive Vice President of Field Technology at Primerica, had his team develop an application called TurboApps, which captures and submes life insurance applications on personal

digital assistants (PDA's).

gather and input information directly into the TurboApps screens. The TurboApps solution was designed to eliminate errors by running a check of the application before it can be submitted electronically. The program automatically identifies ertors and omissions, prompting the agent to make the necessary updates before the customer can electronically sign the application on the device TurboApps eliminates redundant data

entry for the agent and the company, preventing incomplete or incorrect applications from being submitted, which saves a lot of time. labor and money

MINUTES NOT DAYS

spectively

Now sales agents can complete the application process in just minutes. whereas before we deployed the TurboApes solution, this process took sev-

eral days," explained Swift. In the first full month since deploying the solution, over 8 000 agents activated the new software on their PDA's, and 23% of the company's total U.S. life insurance production was submitted electronically via TurboApps. Today those numbers

have reached 17,500 agents and 47%, re-Succincily stated, TurboApps enables agents to process more applications

and transactions, in less time with more accurate information. and make better more informed decisions for their customers. This expedited processing of applications has resulted in quicker payment of agent commissions In addition, automating the paper-based applications process allowed the comparty to significantly reduce transactional costs associated with re-keying data, filing paper applications, mail sorting and

The proven case of use with PDA's has enabled the agents to adopt and begin using the applications immediately. Thousands of Primerica agents already use a PDA, so there was rapid familiarity with the device and functionality. A

Agents sit down with their customer to

Texas Dept. of Family and Protective Services



WITHIN THE TEXAS DEPARTMENT OF Family and Protective Services (DEPS) are hundreds of Adult Protective Services (APS). caseworkers visiting elderly and disabled adults who are the victims of abuse, no. elect and exploitation. Fiderly or disabled Texans represent about a quarter of the state's population. In 2004 APS completed 60,998 investigations of which 44,034 were

confirmed cases of maltreatment When the department receives a report of abuse, neplect or exploitation caseworkers are required to initiate an investigation

within 24 hours. Caseworkers. complete a comprehensive assessment of the alleged victim's situation to identify and address mot causes and provide or arrange for services to alleviate or prevent future. maltreatment. A wide range of services are provided directly by caseworkers, through arrangements with other community resources, or purchased by APS on a short-

term, emergency basis EASING "HUGE WORKLOADS"

Caseworkers typically carry huge workloads and, as required by their jobs, file reports on their home visits to clients. Tradi tionally, caseworkers took notes in clients' homes, then upon returning to their office, manually typed reports into the online

Statewide Automated Child Welfare System (SACWIS) application. This procedure was time-consuming and cost ineffective Meanwhile, caseworkers had no way to

access DFPS information and resources from the field, in order to provide resource information to a client, caseworkers had to return to their office and look up the information there

DFPS needed to leverage leading-edge technology to enable caseworkers to file their reports more quickly TEXAS from clients' homes, to access resources and case documen-

tation remotely and to create a network for quickly sharing information within COC

To achieve these goals DFPS developed Mobile Protective Services (MPS), an application running on a Tablet PC device that allows caseworkers to file reports on the spot, using handwriting and voice recogni tion as data entry tools

USING DIGITAL CAMERAS

A digital pen, which functions as a

mouse expedites the process of filling out forms. The information is electronically transported to a database and is immediately available to supervisors, who can act more quickly to serve the critical needs of clients. The application allows caseworkers

to send e-mail, including digital imsors for supervisory consultation. Us. ine diotal cameras connected via USB cable to their Tablet PC's, caseworkers can speed treatment by transmitting a digital image of an injured adult.

The solution also provides case workers with wireless access to their existing case data. They can receive and view a new case referral while in the field and perform necessary back

ground research remotely MPS is the first of its kind, the only mobile solution that allows state caseworkers to unload and detenioad data wirelessly in real-time.

THE TABLET BY IS SO HELPFULTO ACCESS THE

MES WORK! OAD WALK S OUT AT THE FACILITY TYPING DIRECTLY INTO

THE CASE ELIMINATES LOTS OF TIME WHEN I HAVE A SICK CHILD AT HOME I CAN STILL

TYPE CLOSINGS. DOCUMENTATION AND DON'T FEEL SO BEHIND **UPON MY RETURN."**

JENNIFER QUINN REGION 7 ADULT PROTECTIVE SERVICES FACILITY CASEWORKER, TEX. AS DEPARTMENT OF FAMILY AND PROTECTIVE SERVICES

Airport Authority Hong Kong

"WITH THE AIRPORT
WIDE WIRELESS LAN IN
PLACE, MY USERS AND
BUSINESS PARTIERS
CAN NOW FOCUS ON
WHAT INFORMATION
AND SERVICE THEY
NEED AT THE SPOT
RATHER THAN WORRYING HOW TO FIND IT:

COWONG SERIOR IT
HANAGER - TECHNICAL
PLANNING, INFORMATION
TECHNOLOGY UNIT,
AIRPORT AUTHORITY



WITH AN AVERAGE OF 750 secrait movements daily, the increasingly busy thong Kong International Aurport (HKIA) required a reliable, high performance WLAN infrastructure that would enable secure and sended across to information information.

in every corner to keep services running at the optimal level in 2004, the Airport Authority Hong Kong (AA) established, and has since continued to extend, a unified, industry-standard WI AA infrastructure.

The WLAN now covers all the mdoor areas including the Passenger Terminal, the Bug-gage Hall and all aircraft parking stands in the apron. and is the world's largest airport WLAN in terms of coverage and number of access points. Comprising on 200 access points and egith controllers,

aujot in Chen Herains ou Overage aim unimber of access points Compressing over 200 access points and eight controllers. It act only enhances the productinity of AA staff by allowing Akt access to necessary information inside the facility, but also empowers business partners, including, airlines, service agents, aircraft manner engineers, resultiers and witness ISPs to build applications and offer services in the PAIC.

HIGHLY EFFICIENT TRANSFER

The HKIA is one of the few airports leveraging a robust WLAN infrastructure to expedite passinger acceptance. To boost efficiency, on-demand mobile check-in is conducted immediately when passengers airlies at the airport.

The WLAN also helps cut queuing time for inbound passengers by sea from some Pearl River Delta (PRI) ports in Maintaid China. Passengers arriving at the HKIA's SkyPler during peak hours from these PRD locations are processed by Wireless Check in and proceed to the passenger terminal by bonded buses for their lights, without having to go through customs formalities

Importantly, the industry-standard WLAN helps the AA meet the performance target of ensuring sufficient facilities for artimes to maintain passenger queuing and check-in time within 30

Using barcode and RFID technology, writeless dual-mode scanners track and reconcile each transfer and departure bag in the Bagsage Hall and by the accraft side on the apron. This enables the AA to surpass the IATA differmational Air Transport Association standard of five

ansport Association) standard of five short-shipped bags per 1,000 passengers With wireless handheld or in-vehicle computers, staff

NEXT STEPS

Within 2006, the AA will extend WILAN Coverage to the enrise cargo apron Cargo operators can extend their wireless as cess from the Cargo Terminal out to the apron Addrines coupping their aircraft with WILAN Capability can feed information, including maintenance records, derects and in-flight sales vis the AA WILAN to their networks. This ensures faster and more reliable dust transfer.

By Q3, the WLAN will be extended to Terminal 2 and the new AA Headquarters Building, increasing the number of wireless access Points to 300 and controllers

to 12
Building an airport-wide Wireless LAN
infrastructure has enabled mobility of access to mission-critical information by
the airport community – internal staff,
business partners, handling agents and
passengers A

Medtronic

A GLOBAL LEADER in medical technology. Medtronic provides a wide range of products and therapies. In order to improve business performance, it provided its field sales reps with wireless, mobile access to all the data they need to do their jobs without repeatedly calling customer service for help. As a result, the company reduced product obsolescence enhanced sales rep productivity, improved inventory management and eliminated an average of 12 calls per week per field rep

The driving force behind Cardio Rhythm Disease Management (CRDM) Sales Technology Applications, which have deployed 2 050 Personal Digital Assistants (PDA's) that serve as wireless reference communication and selling tools

Used as a reference tool, the PDA's can access the Pacine Encyclopedia, which provides 30-40 years on specs for implantable pacing devices. A Knowledge Base provides reference materials so reps. can look up product information, hospital reimburgement info, etc

ACCESSING MULTIPLE APPS When the PDA's are used as a com-

munication tool, they employ wireless messaging capabilities to access e-mail, contacts and calendars. They also provide text messaging and a built-in phone. In addition, they include a mobile office suite

As a selling tool, the PDA's run two major custom wireless applications for field sales reps. The first one of those is a wireless application designed to enable the Meditronic Field Sales Force to manage their inventory of medical devices they sell, which all have expiration dates.

The application lets reps view field inventory on their PDA's and enables them to perform a number of tasks. These include conducting regional product searches. viewing product expiration dates, recording sales and creating nurchase orders, re-Questing product replenishment with specific delivery dates and times, transferring products and sending mestions directly to

The second application allows tens to use their PDA's to see the inventory in their own Trunk" (that they carry) view the "trunk stock" of all those benefits is Meditronic's Meditronic the other sales people in their district, and to view products on the shelf at hospitals. The year can nick the products they will use, create an order

and submit the order wirelessly BRINGING REPSTOGETHER

When the order is submitted, the PDA sends a wireless e-mail message to customer service with specific instructions such as how to replenish the item. The order and all the instructions show up onscreen in Meditornic's Minneapolis headquarters for fulfillment. If a rep locates a product in another rep's "trunk stock" and they meet so one rep can get the tem from another rep, they use the PDA to note that the inventory nem has been

Medironic developed the wireless applications in house to let field sales reps perform wireless sales queries on their PDA's They enable field sales rens to check their sales and PO Pendings. The repuses an application to check daily schedules assigned by their district sales office

Meditronic also uses the PDA's to survey its field sales force Reps receive an SMS that when clicked, downloads a survey to the PDA for reps to complete and transmit

"MEDTRONIC IS EXTREME! Y SATISSIED WITHTHEWIRELESS ADDITIONS THAT HAVE BEEN DEVEL. OPED AND DEPLOYED TO OUR FIELD SALES FORCE THE APPLICA-TIONS ALLOW THE FIELD TO BE MORE PRODUCTIVE ANDTO RETTER SUPPORT OUR

HM ADAMS, PROGR MANAGER, CARDIO RHYTH



CLISTOMERS."

wirelessly Medtronic has achieved a 30-40% response rate on these rep surveys, allowing it to better understand their rens and their needs A

Beth Israel Deaconess Medical Center



HIGH QUALITY PER-SONALIZED CARE AND REDUCE OUR SUPPLY CHAIN COSTS."

DR. IDMN MALAPIKA CHIEF BIFORMATION OFFICER, SALES TECHNOLOGY APPLICATIONS, BETH BRAEL DEACONESS MEDICAL CENTER



BETH ISRAEL DEACONESS Medical Center needed a more efficient way so man age its mobile asset workflow, and track critical biomedical equipment, patients and staff

Dr John Halamka, ClO at Beth Israel Deaconess Medical Center, estimated that an asset-tracking sofu ton could save Beth Israel more than \$1 million year-

tion could save Beth Israel Mee
more than St million yearly by avoiding wasted hours searching
for the equipment when it was needed
heliamia estimated that about \$50,000\$400,000 of equipment disappears yearly,
typically misplaced in the course of dayto day operations. The goal was to have

immediate access in that equipment. Beth search choice a Win-Flowed asset tracking and visibility system to meet the raisest beauting needs. The pysiem provides a cost-effective solution that because the tracket securities wireless networks to defiver real-time focusioning section of the controlled of the controlled

hardware deployment SYSTEM ELEMENTS

on a fully integrated solution, including the asset bracking and visibility system running over the wireless network. These exhibition spikinics, an operating system platform, a locator application and accorered to the platform of the platform of the exhibition of the platform of the platform access points and active RPD tags for "x, y, and floor" location data. The assettracking and visibility solution leverages:

The deployment at Beth Israel is based

data from the location appliance and transforms it into intuitive asset tracking information for the end user je g, a nurse in a hoopfal looking for a vertifator, a materials manager searching for test

materials manager searching for test equipment, etc.). The initial implementation was distributed across Beth Israel's

Beth Israel Deacons little alone both for acts before Medical Center 96(%) dequire foot emergency department, and searching and then expanded the second of the second of

BOTTOM LINE: ENHANCED PATIENT CARE

ENHANCED PATIENT CARE
The Pitch Tract Learn gained substantial
knowledge from this implementation.
First, it now always knows where assets
are located, increasing their inflication, and alverding innecessary procurement
t also knows far more about how the
copupment is load, where at been, and
if it needs repair. This keef of locationbased linelitigence truly optimizes words
about the processing inspiration, improves
patient care.
Location and status information are.

also integrated at the nunci statuon in the center of the emegancy aroun ERR. The electronic daubthound application used by Beth Steal Funds patients clinical progress, bed availability, and work-flow. As a result, patients keave the ER an average 45 minutes sooner, a maper containing measure. Other major benefits include improved patient and staff satisfactor, reduced egotiquenest purchases, and some reduced egotiquenest prochases, and some reduced egotiquenest prochases.

(intel) Leap ahead

Download a love song. Crush an alien. Find a sushi spot.

With receive modular communications partforms and scalable into at the current control of control o

July in organ A1 ight in the melliogo the



"TI ISVERY SATISFYING
TO SEE OUR STUDENTS
STUDYING AND COL-LABORATING AROUND
THER LAPTOPS USING
OUR CAMPUS NET-WORK RESOURCES
AND THE INTERNET
VIA COPPINES WIRE.

LESS NETWORK."

AMMEDIT.-MAGGEN, VICE
PRESIDENT OF IT & CHIEF INFORMATION OFFICER, COPPIN
STATE LIMPOSEMY.

COPIN STATE UNIVERSITY set forth to transform is teaching research and adminsizative environment through the strategydeployment of IT he academic and IT leaders had an archibious objective to make Copin Salve technology infrastructure a competitive differentiates to attract new reportants on statems, retain top book and optimize the proteins and efficiency of its administration in order to do so, it would have to deploy a new stone and data networks.

STRIVING FOR "TECHNOLOGY FLUENCY" The inadreship team concessed of a

"Technology Ruency Program" which would immerse students in a sophisticate, not horhology environment which would provide them with the necessary skills, conceptual understanding and intellectual capabilities to render them technology fuert.

Since his noblast infrastructure was built.

Coppin State has launched several technology initiatives that have enhanced students success Their include the Togrity Campus, where classroom instruction is recorded, up-toded to our Chris for latter rows and synchronization to the students' digital notes taken synchronizaty or asynchronizaty or control to their new initiatives include a web-central control of their new initiatives in their new control of their new initiatives in their new order of their new initiatives in their new order of their new initiatives in their new initiatives in their new initiatives in their new initiatives in the new initiatives in their new initiatives in the new initiatives in their new initiatives in their new initiatives in the new initiati

tric Enterprise Resource Planning (ERP) system, enhanced campus security, and a one-card system for faculty and staff access to classrooms parking areas. This one-card system is also used by students in residence facilities for meal plans. The inforstructure enables the came.

pus-wide deployment of decision support systems, data analyzers, and a data waehouse. Secure campus servers within the network infrastructure enable the deployment of an e-provisioning system and Web self services.

in order for all his to happen, the enter core camps network infrastructure needed to be upgraded. The plan included ophysment of a new slephency platform, including traditional and IP (lephony allows), mit and the plant of the platform of the other provide greater brandwish, reliability, reductions and quality of service features for the plant of the plant of the plant of the west required and the plant also receded to were required and the plant also receded to companies and the plant also receded to the plant of the plant of the plant of the plant of the were required and the plant also receded to companies without the plant of the companies without the plant of the

CHANNELING IT ENERGY

In short, the goal was to roll out a stateof the air network ministructure that would energise the floodity postingopoul creativity. Solder research movosation, streamline administrative efficiency and mubble learning and sourcess Then with portal technology provided sourced access to our subderes, Guothy and state of the streamline of the streamline and support sourced access to our subderes, Guothy and state of the streamline of the streamline of the streamline of self-envisor. Deploying an SSL VPN

solution enabled the university commanity to remotely and wirelessly have secure access to their homes, departments, schools, and campus-wide data storage areas

Deploying IP SANs (ISCSI) enabled faster, larger, cost-effective socrage capacity We are currently deploying an IP SAN to replicate our mission-critical data to a remote safe for disaster recovery purposes. Wireless VOIP phones are deployed to our Help Desk, IT Support staff, Housekeeping, and Public Sufety. A



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Electrical Safety Authority of Ontario

"WE ARE EXTREMELY PLEASED WITH OUR MOBILE SOFTWARE, LAPTOP AND WIRELESS CONNECTIVITY SOLUTION. IT DRAMATI-CALLY IMPROVED THE MORALE OF FIELD USERS AND COMPLETELYTRANSFORMED

THE RELATIONSHIP
BETWEEN THEM AND
THE IT DEPARTMENT:

**AGE TAX OR DIRECTOR
OF INFORMATION SYSTEMS,
BLECTRICAL SAFETY AU
THORITY OF ONTARO



TO ENSURE THE SAFETY Of Orbaton readents the Electrical Safety Authority (ESA) inspects all electrical installations wheled for eve construction, removation or mainterinace in commercial industrial, installational and seadental settings year. ESA incomes approximately 36,000 new equalists for impactions? This combined with follow up visits amourast to an average of 15 impactions a day for each of its 200 inspectors.

Managing this process in an efficient, cost-effective marner has been a complex challenge, until recently In 1996, ESA implemented

a homegrown chent server, mobile inspection system to process requests for inspections, assign them to its inspectors, and synchronize inspection data with its consolidated database. Although ESA was ahead of the industry at the time in its use of mobile technology, that sistem ulb-

mately wasn't able to meet its needs.
That system was replaced in 2000, but after a few morths ESA realized that sofut the too, too, was not able to easily meet the data access needs of its mobile frontline.

SEEKING FRP COMPATIBILITY

SEEKING ERP COMPATIBILITY
Determined to find a solution that would
meet its business needs—particularly improving improcing productively, acheving
faster data synchronization and accommodating unique business processe—
ESA decided to create a new mobile data
collection and synchronization solution
that would interface with its Enterprise
that would interface with its Enterprise
Resource Planning (ESP) application

Prior to the standard practice of issuing an RFP to create and implement this solution, the ESA project team, which included both IT staff and inspectors, took the unique step of contacting peers at 10 different organizations to see how they were employing mobile technology to achieve their business objectives. The ESA team also gathered information from these peers about the various vendors they were considering contacting for RPPs. After a thorough assessment. ESA se

lected a rapid application development tool for mobile solutions. This tool was powered by a software package that provides data management and enterprise data synchronization that enables the rapid development and deployment of databases—powered applications for mobile embedded and SMB environments. The rand application development tool

enabled ESA to develop solutions with functionality to meet its sp

functionality to meet its spe crite business needs at any given time without having to crity

Unlike many software applications that force business processes to fit the application, the tool allowed ESA to force the application to accommodate its many unique Public Safety processes

"ONE-SCREEN" APP FITS ALL ESA developed a time-saving "onescreen application" that allowed its in-

spectors to synchronize each morning to get their work assignments, to record the results of each inspection, and to synchronue that information with its work order system and back-end disabase as frequently as desired throughout the day. The new solution's synchronization

technology was also a major timesaver Previously, it took inspectors 20 minutes or more to synchronize their data at the end of the day. The rapid application development tool slashed that to just two

minutes

The system is a complete enterprise mobile data collection and synchronization solution that allows ESA to exchange business-critical information by directionally between mobile workers and centralized systems, anytime and anywhere they can get a weed or wireless connection.

United States Postal Service

THE UNITED STATES POSTAL SERVICE (USPS) is a large and distributed organization with a diverse and complex employee population and workplace that is in motion twenty-four hours a day 365 days

We faced two problems ubiquitous to will fairly composite environments. Number one, laptops and other mobile's oblidons arent mobile enough. Our managers increasingly find themselves in situations that require the ability to immediately according to the control of the control

ACCESS IS KEY

Number two, how does a large distributed organization manage the support, cost for the service and maintenance of the mobile solution that you use to solve

problem number one?

The tasks assigned the USPS information Technology (IT) organization were clear

Easily and affordably provide access to corporate data, busness applications, USPS Intranet, the Internet, and instant communication alternatives everywhere, all the time. We also needed to provide enterprise life-cycle management and the oversibil to flandware, sup-

port, and service assets

Beyond estail and calendaring, USPS
If designed and developed the following
management applications that are available from a personal digital assistant

eTravel - Review and approve travel vouchers eBuy - Review and approve funding

eAccess - Review and approve requests for access to applications, data, systems, facilities

PEMS - Postal Emergency Management System

EPIC - Electronic Postal Information Center These applications are writessly pushed without user mitrestron to 6,000 postal managers, including all 38 officers of the company. 700-escuble managers, and all operations management, including over \$.300 major facility managers, key sald. and continuity of operations processing

ENHANCING USER POWER

In addition to standardizing batchware and software to a cost-efficient PIO, we adopted a proactive self-service approach to based on anticipating and resolving problems before they become lefely-desk tackole St. Out training toold and infrastructure design simplified the user interface, emprovering coatomers to meagle tools that properly coatomers to meagle tools that properly professional to resolve post and properly and a supplication of the post a supplication

Let use the confidence of the

access data. While only in production for a few months, the ITSSA has shown to be a time and labor saving tool by serving as the critical integrated link between individuals wendors and IT infrastructure.

Our managers are connected anywhere,

"U.S. POSTAL SERVICE INFORMATION TECH-NOLOGY HAS BUILT A PLATFORM FORWIRE-

LESS COMMUNICATIONS THAT ENABLES ALL 800 POSTAL EXECUTIVES

AND 5,200 SENIOR STAFF
TO SERVE OUR BUSINESS
NEEDS INTHE LONGTERM AND HELP US
CONTROL COSTS."

HOSERT OTTO VICE PRESI-DENTAND CHEF TECHNOL-OGY OFFICER, UNITED STATES POSTAL SERVICE



anytime. They can offer real-time re-

sponses if needed.

The five Postal business applications that are now accessible from the PDA are easier and faster to use than the Web-based applications accessed from a traditional workstation or lap-

St. John's University

"THE DIGITAL VIDEO
SURVEILLANCE SYSTEM
IS EXTREMELY FLEX.
IBLE, AND CAN BE EAS.
ILY REPROGRAMHED TO
RESPOND TO THE UNIVERSITY'S CHANGING
NEEDS ON A HOMENT'S
NOTICE, WHILE PROVIDING A SECURE CAMPUS
ENVIRONMENT".

INFORMATION OFFICE ST.JOHN'S UNIVERSITY WITH THREE NEW YORK CITY locations, S. I. kin his University internefied as focus on security following the events of September II, 2001, as did many institutions in New York. The University was clienful, though, not to infringe on the lives of its students, and insisted on maintaining air open-campus currisonment, allowing unhampered access to the resident driving half and many cardemic halfall and many cardemic halfall and many cardemic halfall.

In 2004 the University piloted, and subsequently implement, a digital surveillance system at its Rome campus. St. Johns, impressed with the system's effectiveness and ease of installation, became continued that digital video was the right technology to move forward with

UPDATING LEGACYTECHNOLOGY
The challenge the University faced
was the need to overhaud an aging system white integrating new technologies
and improving security capabilities to
accommodate a growing resident- and
commuter-student population of more
than 20,000 students, as well as more
than 20,000 students, as well as more
than 20,000 students, as

good working partnership, Information

Technology consulted with Public Safety to address the problem The two departments chose a network-based, integrated, digital-video system using both costing and new Cameras.

The advanced, stateof the art, digital, video-technology system features software that detects motion, making it easier to locate and track incidents without desruting the flow of

data. Incidents can also be flagged and reviewed later. The spiriture Singhat Lethnology enables campus security officials to re-program surveillance monitors to focus attention on the areas on cancer challing enabled and cancer challing enabled security at all events held on all campuses. For example, the screen viewed human a sporting event would be different than those on move-inday.

The cameras now connect either over cable ce writessly to digital encodes: which turn the analog video signal into a data stream that travels on the Universaly's Pretwock (P cameras, inject use, can also connect with or without wires to the core network) pile servers that store the data, and a rew. state-of

the-art command center are also connected to the network this architecture puts the correct components in their optimiting and system while ensuring a seamlessly integrated system

MAKE IT EVEN BETTER

St John's campuses were secure, but the security system needed to be made more efficient so that it could be monitored effectionly.

The University spent about \$600,000 on the digital video surveillance projugate of surveillance projugated outside projection with new digital recorders, integrated outsiding cameras into the system, and bought 78 new cameras for the Queen's campus, but off campus student apartment houses in Queens, and the Staten flashand and Manihattan campuses.

New flat ganet monitors and computers support furniture replaced oil video monitors in the Public Safety command center. A separate IP network was built on the Queens campus to transmit all video reliably. Eight servers were purchased for the project, which has been praised by the entire University community.



SureXpress

SUREXPRESS OFFERS COMMERCIAL delivery services throughout Orkinhorms as well as select areas of Texas, Kaneas, Arkansis and Misosori. The company specializes in ensuring overnight, same-day and two-day delivery of medical and veterinary specifieness. x-rays, pharmacomitos, legal documents, payord, durantees, payord, durantees parts, bazardous waste, and a vanetty of other immorantee parts.

of other important terms
Sunctipies has been also to compete
with well-established services by specualsizing in the develoy of sensitive metalbut a pre-consult struggled with a cumbersome, puper hased oracting system that,
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but a pre-consult proged oracting system than the
but and the fact that froud and Drug Administra
becomes
solitow to develop in the competence or competenc

ensure secure handling of pharmaceutic als and similar substances. SureXpress desper atcly needed to move into the digital age. The company has implemented a digital tracking and monitoring system that com-

sists of personal digital assistants (PDA's) running proof of delivery software. TRACKING PACKAGES

Today, a customer requests a peckup through the Sueveyess Web six, which automatically routes it to a doparth sixem and assigns a stucking number. The package gets scanned when picked up and delivered, with the signature on the receiving end matched against the tracking number to source that the stem went to the proper recipient. Anything stored temporally in the company's swandouse is also scanned when it enters and leaves in also scanned when it enters and leaves in also scanned when it enters and leaves in the control of security.

In the past, a bill of lading was generated and given to the customer, who filled it out and handed it to the driver. The slaps collected during a shift werent reconciled until the next day, allowing too much time to clapse before mistakes were caught. Today, not only is survicipress alerted as soon as a problem occurs, but it also knows with a diver doesn't have any puckages to pack up at a particular location, giving the company peace of mind that nothing was missed.

INSTANT INFORMATION

SureXpress and its customers now packages, especially pharmacculocals and other sensitive materials that could become a federal matter if misplaced press in this enhanced environment, the delivery process is faster because ruper has been elimi-

nated. Also, the company learns about problems immediately, rather than waiting for bits of lading to be reconciled the next day. In addition, the billing and collection process is streamlined, as times have been cut from 3-4 weeks to about 10 days, thanks to the

streamlined, as times have been cut from 3-4 weeks to about 10 days, thanks to the ability to automate the delivery charge and link it to the company's accounting software through the proof of delivery system.

Now drivers use the PDA's built-incamera to document damaged packages when they're picked up, awading blame for items broken by others Because the system is based on an application service provider. Sure/Spress eliminated the need for two employees one that helped bandle paper records and one that managed TT tasks.

Like most companies, SureXpress is looking for a competitive advantage, and its new tracking system creates that advantage because it is more robust than "BASING OURTRACK-INC, HONTORING, AND CORRUNCATION 575-TEMS ON A WIRELESS CONNECTION GREATLY ENHANCES OUR SHAR-ING OF INFORMATION INTERNALLY AND

INTERNALLY AND EXTERNALLY FOR POSI-TIVE RESULTS ON A REAL TIME BASIS."



ROOKSWRIGHT, CHI

other systems used by even its largest competitors. This is a key selling point when attracting new customers. A



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eet Abst. vicery to be project or to to to the second of t

have at www.intel.com/ga/centrinoduo.

hers from the company provided the

needed business knowledge and took part in system testing and rollout We decided to increase visibility into the supply chain. If we could improve the quality and timeliness of data from all parties in the sumply chain, then the inventory planners could make better product allocation decisions. Our an proach had three objectives 1) Fnable product suppliers to electronically send inventory data on a regular basi 2) automatically update a supply chain database with new inventory data as it

becomes available, and 3) enable inventory planners to query the database to get the reports they need. How did we accomplish our mis sion under tight time and budget constraints? By not trying to do every thing. That doesn't mean we just threw together some half-baked program

code that would crash unexpectedly. It means we built a robust 80% solution to the most pressing problems. We delivered a simple, stable and scalable system to achieve the defined objectives. And the system can be built upon and expanded later with new features as needs evolve.

Here's the test: Sketch out your sys tem design. How would you build it? What's your work schedule? Where would you enhance the system in the future? Send me your answer: I'm interested in hearing what you would do Next month. I'll tell you what we did. If you want some ideas, see my webcast 'Moving Toward the Agile Enterprise (click on "Webcasts" on Computer world com). This is a chance to earn a

promotion and a three-day pass. MICHAEL GARTENBERG

'It'll Soon Shake Your

Windows...

HANGE CAN be good. but sometimes, no Imatter how good new ideas are, they don't catch on.

Take the venerable keyboard arrangement. Legend has it that the OWERTY layout was adopted by type writer vendors to keep users from typing too fast and iamming their mechanical machines. Despite the creation of better layouts that would facilitate faster typing we're still using the old law.

out it might not be efficient but it's familiar and it works. Microsoft is trying to make some changes in the way we interact with our PCs. It's not a new effort. It started with Windows 98 and the ability to open new windows with one click instead of the customers

double click. Most users didn't adam well and turned off the feature. Now with the imminent release of Windows Vista and Office 2007, it looks like we're oning to see even more chances to the way Microsoft wants us to work with our machines.

You know the feeling. Your work space might seem cluttered to others but you know where every item is. If someone cleans up your space, you can't find anything. That's how I feel using the betts of Office Windows

Internet Explorer and Modia Player The current paradiem for GUIs isn't perfect, but I have a lot of time invested in it. I've our six years invested in XP and even more than that in Office I know where every thing is and can get there in

With the new versions. nothing seems to be where it belongs. Several decades worth of GUI guidelines were tossed out. Worse, it seems I'm required to have a fine degree of mouse day. terity in order to hit all the tim targets on the screen that need to be activered And I have to wonder, who

thought putting the menu har under the address bar in IE was a good idea? Why is the zoom command in Office buried at the hortom of the screen? In contrast, when I switched from Mac OS 9 to OS X. I found a lot of things that were different but ever

thing made conce. All the core fund tions still worked the same. The result was a design that worked and for some reason my mouse ends up making the correct choice when I need to do something that's different At the moment

Vista feels very alien Office mon more so, and I've banished IE7 from my XP machine because working with it feels

so foreign Perhaps I'd he more accommodatine if some of the more fundamental issues of the Windows operating system were addressed. (For example, in this era of connectivity and mass storage why do

I still need a "Save" menu item - anywhere? Why isn't everything I do saved by default?) A lot of these changes feel erstuitous - change for the cake of change and not for improvement. But even if the changes are meant to be improvements it might have below! if the designers had taken a closer look at their OWFRTY keyboards first There's been a lot of discussion

about the implications of these new products, but one thing is clear. If you're looking to deploy, he prepared for a lot of users asking, "Who moved

my stuff?" Years ago, Bob Dylan sane. "Ir'll soon shake your windows and rattle your walls for the times they are achangin's Who knew the Windows Bob was talking about was Vista? 9

WANT OUR OPINION?

More columnets and links to archives of previous columns are on our Web site:

READERS' LETTERS

Certifications Are Of Diminished Value CERTIFICATIONS ARE def-# nitely of owestionship value l'Debate Over Costs, Benefits of Certification is Unsettled * April

ed increases for a certifica tion, the value in terms of salary decreases as holders of that ourly fication become so numerous that they are a dime a dozen. Thu moor winners are the testing centers

that advangages the tests. Another problem is how pary if is to shoot The Internet is leaded with cheat sites, and there are very lew tests that haven't been conducted in their entirety and rule. ished on the Web Professional examitakers can also be board Finally, many contrication cours

teach not how to deal with the real world had bow to nose the last On the plus side, certifications can get you past HR since some HR people simply look at an he made. The Wish is no place.

alphabet-soup collection of buzzwords. Having the right mix can unate a reason for the HR one son to say no but it doesn't mean he will automatically say wis. John A. Brohman Instructor, British Columbia Institute of Technology

Free the Web of Proprietary Tech CHARLES HAVEN and Bar Pratt claim in their letters that

Finalos is not an alternative 100% of the tirm, mainly because not all Microsoft prograttery technologies are supported ["Firefox vs. IE vs. None of the Above." April 171 That however is not a defect of Finefox, but a defect of the Web pages. Web sites are supposed to netwide Web pages that are hely HTML competible, because then it doesn't matter which browser is

used and a true companson can

for project and and proportions technologies that demand that everyone use a particular henwise. And Finelox starting up slow? Yes. because it does not load everythen mont for the GLE on system start-up as Internet Explorer does. No wonder IE starts faster Donald Kelenes Software support engineer

Bristol Corn. Good UWB Primer

HE APRIL 10 Our &Stock at

ticle on "Ultrawideband" wireless technology was the cinerest most cocent amisostop of UWR Jeanne Bandle

Cleveland The Ills of Works Out of the Box'

THE "WORKS out of the box" syndrome is prevalent FFactory Settings - Insecure by Default," Technology, April 241, I arts sure many propagations have 'more acress noints because samebody weet to the office supply store bought a workers muter benought it back to the office and plugged it us. So anybody with a erreless lanton has access to the AN this not a majorious art but lack of information. The hardware vendors and make if Inc. page

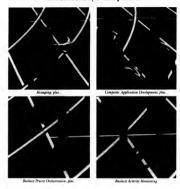
Mark L. Strickland, CISSP

IT director, Atlanta

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TECHNOLOGY



FUTURE WATCH Minds of Microsoft

Experts at Microsoft Research like Kevin Schofield (far left) and Victor Bahl, are at home whether they find themselves developing search engines or looking at ways to use ant spam technologies in AIDS research. PAGE 30 SECURITY MANAGER'S JOURNAL

C.I. Kelly offers a mea culpa after she realizes that the all-in-one security devices she purchased aren't up to par. PAGE 34

In Search of the Information Kilowatt

As virtualization continues to convert computing infrastructure into a commodity service, a common metric for meterine those services will need to evolve, says Mark Willoughby. PAGE 36



The convergence of mobile networks and devices could extend coverage and simplify access, but loose ends linger. BY JOANIE WEXLER

AT CROSSROADS

ine mobile day face a

enting array of wireless access technologies, service es and devices that are fairly complex to cobble together. To maximize network coverage, for example, most large reanizations must work with several ular network operators. They also often run their own private wireless LANs for faster, less expensive mobile

campus connections. Achieving broad mobile coverage could soon become less cumbersome however, as LAN-speed Wi-Fi petworks and cellular networks take their first

early steps toward convergence.

Managing cellular wireless alone is a challenge that typically involves purchasing, provisioning, managing and securing a variety of wireless cards, devices and network service suppliers.

"When managing multiple vendor relationships and configurations, the cost rises exponentially and eats up time," says Tony Fuller, CIO at Rent-A-Cente Inc., a North American retailer based

shooting across multiple operators works remains an issue and poses

Salespeople, held service and highly mobile executive

in Plano, Texas, "And users adjusting to use different networks spend time concentrating on the device, not on the work at hand."

The convergence of Wi-Fi and cellufor devices and networks — which will eventually hand off signals to each other so users won't have to reauthenticate when crossing network boundariescould hele address these problems Nascent industry endeavors to bridge these environments roomise to extend the reach of wireless networks, reduce the number of client devices per user and streamline the lines of both IT and

the mobile worker. The IT community likes the sound of wireless conservence - at least on paper. "We use both wireless ILANI and cellular. Obviously, we'd love to have the two converge into a single wireless source," says Vern Burley. chief technology officer at CWCapi tal LLC, a commercial loan company based in Needbarn Mass "Handoffs between mobile perworks would allow our lenders to continue conducting business independent of the network available and maximize the use of

their time Paul Limon, IT manager for the Americas at heavy equipment manufacturer ICB inc in Pooler Go. concurs, "Extending our [virtual LANs] out across multiple wireless networks would be a natural for us, particularly for our quality-control inspectors," he says. "Who wants to continually log on

and log off? The required technology components are arriving piecemeal, however, so converged mobile nievana isn't bere just yet. As a first step, laptops and indheld devices are gaining embedded connections to both WirFi and mobile WAN networks. This gives a device a higher probability of finding and connecting to a nearby wireless network, effectively extending the user's mobile coverage. Some converged

service offerings are already available. **Apprenating Services**

Network aggregation services from companies such as iPass Inc. and Fiberlink Communications Corp. represent an early move toward convergence The wireless and wired network services they bundle and resell from carriers around the world are used with client devices that support connections

to multiple networks. The various services are accessible from a common client software interface provided by the aggregator, so users can access the best available net work wherever they are. The asuresa-

Dual-Mode Devices

AFTOPS, which are already shipping with embedded Wi-Fi connections, are now garage integrated mobile WAN corportions, too Lenevo Group Ltd.'s Z-, T- and X-Senes, ThinkParks, for example, now ship. with both embedded Wi-F) and #00Khit to 700Kbt/sec. EV-00 connections. Dell inc began directly integrating Cogular Wireless HSDPA LIMTS connections into its Labitude ine of notebooks in late March, the connec tions are backward compatible with EDGE and GPRS networks throughout the world Dell has also said it will integrate Verizon Western EV-DO connectivity into its insacro and I atturb lines this year

Dust made weather handheld desire

tor maintains the multicarrier relationshins and provides burkered security billing and settlement services. The mobile WAN component of

these offerings isn't yet globally cohesive, however, "The wireless support of today's providers is not set mature enough" to consider aggregators for worldwide mobile convergence, save Albert Hitchcock, CIO at Brampton, Ontario-based Nortel Networks Corp. The communications company sunports 27.000 global users carrying mobile devices equipped with both

Wi-Fi and cellular technology. IPass and Fiberlink both support access to Wi-Fi hot spots around the world and resell Verizon Wireless' Evolution Data Optimized (EV-DO) services in the U.S. Outside the U.S., however, customers usually must have

we also emerging. Users can choose from several dual-mode mobile devices for representate over either a mobile WAM or a W. F. L.W. including units from Howlett Packard Co., Intermec Technologies Corp. Motorote and Psion Teldogia, Research In Motion Ltd. offers a BlackBerry that also

supports voice/data over cellular or over an 800 th Williamstand but not both "It's crazy that you can't combine Wi-Fi and GSM in the PlankRemy," says Paul Limon III manager for the Americas at JCB. "We're all road warrors, and we all want (these services) on a smale device for a single price and consistent and reliable speeds." When it approunced its Wi-Ficarable BlackBerry last year RM said that if would eventually support both cellular and Wr-Fi in a smole device, but the company

hose) set approunced a delivery date Some manufacturers do offer dual-mode cotions for worse and data. Symbol Technolog ours for rollers a hinterest MC20 starting at \$2,000 The rugged multifunction device supports Wi-Fi and collular data and yours scarring, push to talk and other carabities In Jepen, the NEC N900s, dust-mode handset is available focuse with NTT DoCoMo Inc.'s third-peneration service Other devices enabling voice and data over both Wi-Fi and mobile WWN services are

expected from Notas Corp. and G-Tals Flac-

tronics Corp. this year

- JOANIF WESTER

mobile WAN services directly from individual providers. The aggrega tors' connection management client software will allow access to these networks, but managing the global mobile WAN carrier relationships is a key one-stop-shop benefit that isn't yet

available internationally For seamless interpetwork rouming once the desired network connection are in place, mobile elient/server VPN software can be installed to let wandering users maintain sessions across network boundaries while retaining authentication credentials. Also some hardware vendors, such as technology partners Motorola Corp., Proxim Wireless Corp. and Avaya Corp., are start-

ing to offer premises equipment that handles Wi-Fi-to-cellular signal handoffs for voice calls. Carriers are also

exploring services-based handoff

alternatives. Today, the mobile commonents needed for expanding coverage vis roaming among multiple networks must be bought and deployed senaestely. Achieving smooth roaming mone wireless networks with no break in a session requires IT to buy. install and manage multiple physical connections per device and deploy

special elient/server software to enable session persistence when roaming In addition, Wi-Fi-to-cellular handoff products and services leave IT departments speculating about the logistics of merging their networks with a carrier's in terms of service levels, troubleshoot-

ing and security "The subject of service-level agreements is fastidiously ignored by those who advocate mixed 802.11 and cellular solutions," says Done Hill, an associate technical fellow and network chief architect at The Boeing Co. Carriers have approached Boring about running a carrier-controlled mixed network where the carrier charges for voice-over-WLAN calls handed off to Roeine's internal WisEi network at a

lower rate than for the portion of a call moving over the cellular network But io a potential bridged Boeing carrier infrastructure, neither party could monitor or troubleshoot across the public/private network boundary without sharing management informa tion with the other. Not sharing the information with the carrier could degrade service quality, but doing so could introduce security concerns

Hill says. This conundrum is one reason why Nortel, at least in the short term, will likely use premises-based equipment for such bandoffs. The company is running trials of Wi-Fi-to-ceilular handoffs with national carriers, testing the capability as both a premises based and a carrier corpless function Mitch-

cock says. Another reason to house and manage the handoff equipment internally for now. Hitchcock says, is that "there's no. single global carrier that can serve our

70-country footprint." Notes Roger Entner, vice president of wireless telecom at researcher Ovum Ltd., "Your carrier can loan you another (modern) card if you (travel internationally). Your other option is to

nely on global Wi-Fi bot spots. Roaming issues are wby Atlantabased United Parcel Service Inc. now does business directly with the world's five largest network operators. UPS Continued on page 28



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Continued from page 26 drivers use the company's self-developed, laptop-based Delivery Information Acquisition Device (DIAD) to frequently transmit delivery status in formation to the corporate mainframe. The latest DIAD version, introduced

last year and in use by 40 000 drivers supports dual mobile WAN connec rions marched to the services with the heat coverage in the ZIP codes of a sixon delege to the evel one tohn Killeen, director of global network systems at the worldwide delivery ser-

vices company. "The previous DIAD seperation ran neimarily on the Cincular network." says Killeen. "We found that 81% of our network problems related to marnine onto a Cincular partner's network So. now we have separate, direct contracts in place with all the primary carriers." Killeen says

For now UPS's roaming needs are confined to the mobile WAN. Sales-Spece personnel use FV-DO services and laptops: the company's warehouse-

WAITING FOR WIMAX

REST-A-CENTER, a cetalor with 3,000 stress and 7,000 trucks in North America is holding out for a single, ubiquitous mobile network technology. It is very difficult to find

a consistent service across the entire country nave (NO) Team Fedire. This is resoldernote: No. cause Rent A Center managers responsible for multiple stores can traverse three states in the came day, he says.

Fuller thinks mable Wilder might solve he problem. The technology promines about 1.6Nbt/sec per subscriber, outstrooms the bendwidth of today's broadhend cellular net-

based personnel use Bluetooth finerescanners that transmit package information to the company's 2,000-site Wi-Fi LAN and don't require cellular connectivity. The company has made a

WMax, and Intel Corp., a key developer of the Inchnology, says if is also in trials with other card ers, Intel ciens to embed mobile WMxx connec-

from directly into lanton methodoweks next year "We're looking for one technology rather than one provider," Fuller saids. "If the uses has to form out what kind of cooperativity is available, ther's awkward. If it can be transport

ent, that's worth its weight in gold."

With the advent of mobile Wildow Feder hopes his company will need to train people on only one technology and use just one

connection in each device. "If you add up the number of people I have to cover times the cost of multiple network connections each that gets (expensive)," he says.

Such benefits aren't guaranteed, h considering that today's competing celular service offerings, afficially based on the same technology don't use compatible connector gear. Thaven't seen a product that supports both Sprint EV-DO and Verizon EV-DO in a single card," says K.C. Condit. Rant-A-

Center's director of technical services. - JOANIE WEXLER

in the DIADs so as not to "interport the driver's day" Killeen adds

Anthony Marano Co., a fruits and vegetables wholesaler in Chicago that turns much of its business around in a day's time, relies on voice-centric cellular/Wi-Fi convergence to survive "Eighty percent of our business

volume involves customers physically delivering, e-mailing or faxing us an neder for produce that's peeded within 48 hours," explains Chris Nowak, IT director. As a real-time business, the company can't afford the delaws associated with extensive voice mails and callbacks and desktop-bound e-mail, be says.

The company treats the pascent Enterprise Seamless Mobility system from Motorola, Proxim and Avaya as its production telephone network even though it is technically still a pilot project. The year-old setup facilitates phone-call handoffs between the company's Wi-Fi network and the GSM cellular network from Cingular Wireless LLC, allowing buyers and sellers to

remain in continuous communication with customers and vendors. The premises-based equipment in

tegrates Anthony Marano's Avava IP PBX with its wireless LAN, the cellular network and a dual-mode handset the Motorola CN620 - that "speaks" both 802.Ha (5-GHz) Wi-Fi and quadband GSM cellular. Users can have a single phone num-

ber that reaches them on the campus Wi-Fi network, which extends across a space of 300,000 square feet, or on the cellular network when they are out of the office - provided that the oumber called is the IP PBX number, says. Nowak. The system extends phone calls, four-digit PBX dialing and phone transfers to the Cingular network:

employees use browser-based Outlook Web Access on the CN620 for e-mail

be says

John DeFeo, corporate vice president of enterprise products at Motorola. says this setup is in a half-dozen trials around the world, but Motorola has decided not to deploy the CN620 as a commercial product. Rather, the company intends to enhance the handset and related system components with unified mailboxes, presence canabilities, enterprise-class instant messaging and possibly additional Wi-Fi radio support. The pert-progration system is scheduled to ship in the first half

of next year, according to a company spokeswoman While a range of converged devices are already emerging (see "Dual-Mode Devices Ready to Roll," page 26), some IT executives would rather see cel-Jular service stabilized and coverage enhanced before getting still more sexy

Dale N. Frantz, CIO at Auto Ware housing Co. in Tacoma, Wash., says. "The bane of my existence is that people love Treo [handheld] devices, because the push technology for 'always-on' e-mail access is unreliable The network drops sessions and user credentials between cell towers and

creates a significant support burden. "It seems there haven't been many performance gains in cellular communications," adds Frantz. "I believe that stabilizing the network services is at least as important as delivering the next device that plays 'Yankee Doodle Dandy""

Wexler is an independent networking technology writen/editor in California's Silicon Valley. You can contact her at joanic@/wexler.com.

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THE NEW VALUE FRONTIER

⊠KYOCERa

HERT'S VIOLE JI Microsoft Research that designing the next version of Microsoft Office is like ordering pazza for 100 million recorde. No matter how you do it a few million of them are going to complain But Microsoft Recent h (MSR) General Manager Keyin

Schoffeld shrows off the diff faculty of designant technology for many markets. "It's our job to understand user differences," he says The research arm of Microsoft Corp. devotes considcraftle transition to the adult hav 200 recently in 67 functional groups, from algorithms to surcless, in six

labs, from Redmond, Wash, to Beijing, Schofield calls MSR The world's largest community actions department Indeed, the scope of activities within MSR is stunning. A lot of the research is what you might expect, with

computer scientists dreaming up a new widget for mobile algorithm aimed at topping Google or some new way to But MSR also enuages in lone term fundamental research that For example, it is working with several medical labs on the application of

nottern-matching almorithms - which is daveloped to recognize spam - to the design of AIDS vaccines. 'The reason that HIV is so resistant to our immune system is because it pers in a host and throws off many new mutations, so your body can't get a good, robust immu nity to it." Schoneld says. That's the sort of strategy used by spammers. A trial vaccine based on Micro soft's algorithms has just began in vitro testing

WIRED

NETWORK

Array of Inexp e cur han sure decides Of as company into a real-time "sensor" for trouble shooting the company's wastern returns

Tortoise or Hare?

Critics have said that Microsoft has been slow to respond to competition, such as open-source alternatives to its products and to upstart companies

like Goodle. But Schofield says the company's book research resources give it extraordinary agility. He says Microsoft, as a matter of policy, won't bid on government research projects - such as those funded by the National Science Foun dation and the Defense Advanced Research

Projects Agency - because they would tend to lock the company into a slow pace of research in certain areas. (He concedes that Microsoft doesn't need the money) As an example of Microsoft's agility, Schofield points to the company's development of its Web

search engine, MSN Search. Two years ago, Microsoft autsourced search to Inktomi Core, but it cuncluded that to survive against the likes of Goorle and Yahoo, it had to build its own search engine. The search developers immediately turned to

MSR, Schofield says. "They knocked at our door and said, 'We are about to start a sprint; come help us. Our research team said, 'Wow, we have a lot of work to do, but we know how to crawl, we know how to index information, we know the user experience for search, and so un.' We pulled out 35 to 40 research. ers from across those areas, across all our labs.

and 12 months later, we launched an Internet-scale Sometimes it works the other way, with the impetus

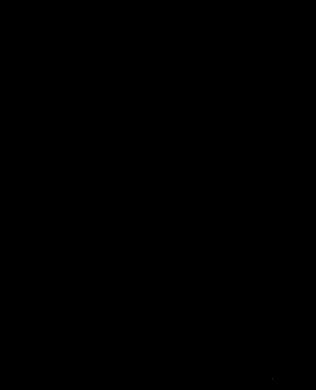
You might expect Microsoft Research to concern itself with the next version of Office. and vou'd be right. But an AIDS vaccine?



for a new technology originating inside research. Victor Bahl. MSR's group manager for nexworking, said he was frustrated in 1997 when he joined Microsoft because there was no standard API that would allow him to easily program the wireless devices with which he wanted to work, "So I went to the vendors and asked them to help, and they thought, 'Oh, this is Microsoft:

So Bahl developed his own API and then used it to create Radar, the first indoor wireless system for locating mobile devices and people. He took it to the product groups at Microsoft and told them that if they could standardize his approach and persuade other vendors to do the same, it would greatly stimulate the market far mobile products. "That led to the effort that standardized wireless networks, and then people started building on top of that," Bahl says. "It provides a very extensive API for program ming Wi-Fi cards." The native Wi-Fi capability that will ship in Vista at year's end stems from that work, he says.

Continued on page 32



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Schofield shrues off the diffigulty of designing technology for must markets "It's our job to understand user differences," he says. The research arm of Microsoft Corn, devotes consid-

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WIRED NETWORK



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locating mobile devices and people. He took it to the product groups at Microsoft and told them that if they could standardize his approach and persuade other vendors to do the same, it would greatly stimulate the market for mobile products. "That led to the effort that standardized wireless networks, and then people started building on top of that," Bahl says. "It provides a very extensive API for programming Wi-Fi cards." The native Wi-Fi capability that will ship in Vista at year's end stems from that work. he says.

You might expect Microsoft Research to concern itself with the next version of Office. and you'd be right. But an AIDS vaccine?

Continued on page 32

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cating systems have grown in size over the years, so has mercomelants than buy crishes compleans and vulnerability to tamperine Meanwhile the time and cost to set out successive



within MSR to develop optimazation and delegated execution tools in 2004 PISK Director large fraction" of his foam to the Wardow's product or or or order to "revenue the engineer ing process in Windows says Daniel Line in MSR corporate vice president. The PSRC was returned the

Center for Software Excellence, or CSF "S S) tools and processes are used by product course throughout Marroant including Windows Office, SOI Server, Exchange and Xbox," Line says USE roads are playing an essential role in the devel arment of Visco the next new ration of Windows, the

most reliable and secure version ever Non-Line says WSR's applies and enabledigity lenges of writing code for multicore processor chips We are try our tycome or with ways to write remallel. movements to allow the contract is an it is not accommon or to and daticult." he says. The results will be used intermally bur will one day end up in Microsoft's Visital

Studio development tools, he says,

Even Cell Phones Get the Blues It the programmability of multicore characters is at onend of Alicrosoft's research complexity scale, the Blue Rendersons project may be at the other. Imag inc two colleagues a few feet apart and armed with

> MSR has hundrade of projects under way in es six laboratones. Hero are three of them:

OFNSE ARRAY

OF INEXPENSIVE

Bluebooth smart phones. You press the same button at the same time, and the photos establish an instant look alreaged which you can each upper business cards or other contacts, documents or photo-

The hoors you have to imme through to get device as notally to each other — what's your energetion key what's this, what's that: - it's practically impossible way researcher Ken Hanckley. "This makes it poslly

He concedes that a tool for swapping business ands is unlikely to ever be a kaller app, but he says Blue Renders one represents the first research step to is and a sour and better intended as a trobase cutting nication. Terty-say you are in a conference room and there's some inharmation you want to share - may be a selfabus that didn't not e-mailed to attendees. Hinddley says, "You could use this same technology between Lietons to crosse a virtual pool that you nest

throw information into, and it just goes away when the laptors aren't near each other am more Lellon researcher Raman Sarin sees the importance of this work over more broadly "Laboras and south cions when people talk about wireless technology, be-

cause it's defined by what it's not." he says, "It's same thing completely new that we haven't figured out set We teel like we are stacking our bur too in the pool of non-chilities of interestine was to combine devices.

19 We feel like we're sticking our big toe in the pool of possibilities, of interesting ways to combine devices.

RAMAN SARIN SCETWARF OF VELOPMENT ENGINEER MEROSOFT RESEARCH

SOME OF MICROSOFT'S RESEARCH GROUPS

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■ Communey Technologies

■ Database

· Granber

Hardware and

and Analysis

■ Media Computing

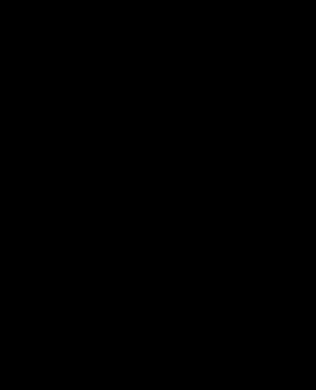
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- Wireless and ■ Multimodal blue interface



Continued from page 30

Sometimes the demand for MSR services comes more directly from customers. As the Windows onerating systems have grown in size over the years, so have user complaints about bugs, crashes, complexity and authorability to tampering Meanwhile the time and cost to get out successive



annulum of Windows house In response, Microsoft formed the Programmer Productivity Research Center within MSR to develop optitools In 2004 PPRC Director

the Windows product group in order to "revamp the engineering process" in Windows, says Daniel Line, an MSR corporate vice president. The PPRC was renamed the

Center for Software Excellence, or CSE. *CSF tools and processes are used by product groups throughout Microsoft, including Windows, Office, SOL Server, Exchange and Xbox," Ling says. "CSE tools are playing an essential role in the development of Vista, the next generation of Windows, the

most reliable and secure version ever. Now, Ling says, MSR's quality and productivity energalists have turned their attention to the challenges of writing code for multicore processor chips. "We are trying to come up with ways to write parallel programs really efficiently, so it isn't so error-prone and difficult," he says. The results will be used internally but will one day end up in Microsoft's Visual

Studio development tools, he says.

Even Cell Phones Get the Blues If the programmability of multicore chips is at one and of Microsoft's research complexity scale the Blue Rendezvous project may be at the other. Imagine two colleagues a few feet apart and armed with

Bluetooth smart phones. You press the same button at the same time, and the phones establish an instant link through which you can exchange business cards

or other contacts. Accuments or photos "The hooes you have to jump through to get devices to talk to each other - what's your encryption key. wher's this wher's ther? - it's practically impossible." says researcher Ken Hinckley. "This makes it really

He concedes that a tool for swanning business cards is unlikely to ever be a killer app, but he says Blue Rendezyous represents the first research step to ward ensier and better interdevice wireless communication, "Let's say you are in a conference room and should remain information you man to show - market a collaboration didn't set consided to attendees." Hinckley says, "You could use this same technology between lantons to create a virtual pool that you just

throw information into, and it just goes away when the laptops aren't near each other anymore Fellow researcher Raman Sarin sees the importance of this work even more broadly. "I always get suspicious when people talk about wireless technology, be-

cause it's defined by what it's not," he says, "It's something completely new that we haven't figured out yet We feel like we are sticking our big toe in the pool of possibilities, of interesting ways to combine devices."

We feel like we're sticking our big toe in the pool of possibilities. of interesting ways to combine devices.

MAN SARIN, SOFTWARE DEVELOPMENT ENGINEER MICROSOFT RESEARCH

SOME OF MICROSOFT'S RESEARCH GROUPS

III Marty Downson

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MSR has hundreds at

THE WORLD ACCORDING TO

I believe less is more. I believe convergence is the path to greater harmony and sustained growth Dynamic Networking from AT&T equities, tames to greater was a clist of

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SECURITY LOG

Saying You're Wrong Can Feel So Right

Our security manager had a bad feeling about all-in-one security devices, but she bought them anyway. By C.J. Kelly

HAD A moment of brilliance this week, and it had to do with realizing that I had made a serious mistake. Yes, admitting you made a mistake can be considered brilliant if accompansed by the fix.

ered brilliant if accompansed by the fix.
You may have read the arricle in which I wrote that I anticipated this particular problem ("Expecting all'in-One Security Headaches," March 201. The state annexy.

I work for purchased all-in-one security devices that promised to provide fire-walling, intrusion prevention, virtual private networking and in malti and the provided fire-walling of the provided fire-walling intrusion prevention.

virtual private networking and network monitoring. I had a gut instinct about this not being such a good idea. So why did I do it?

There were many reasons,

unit tour. There were many reasons, including the following: This inflution was prospected by the state and recommended by the state chief security of the state chief security of the device of the device of the state chief security of the state security of the

my gut.

As I said'previously, I don't
believe that one security device can do so many tasks. If
your firewall can give you the
ability to run a VPN, that's
great. But don't make it responsible for intrusion prevention, spam filtering. Web content filtering and everything

else you can think of. After all, you don't expect your dishwasher to wash the clothes. Why hasn't someone come up with an all-in-one cleaning appliance? Because it would be some sort of crazy contraption, running on wheels so it could maneuver around the beams are incent the flass of the contrap-

hat louid maneuver around the house as it mops the floors. It would have arms to do the dusting. In the thing's bely would be a clothes washer/

the dirry dishes, wash them and send them out the other end. Can you imagine if it malfunctioned and put the dishes through a spin cycle? While I would love the ability to program my entire home to take care of itself. I realize that means programming:

individual devices to do very specific things. OK, I hear you saying, "Hey, lady, we are talking about software modules, each programmed to do specific

things." But I counter with,
"Hey, fella, the software is only
as good as the programming,
and it's sitting on one device."

I know that some of the big.

established companies have combined functions into one device, but we aren't talking about one of the big players. The vendor in this case is not exactly a known quantity. It may have gotten a sole-sourc contract for these types of security devices in the state government in one of those government in one of those

government in one of those mutual back-scratching deals. Then the recommendation went forward from the office of the chief security officer to all the state security officers. Did I mention that the CSO no longer works for the state?

longer works for the state!
Besides not knowing who
these guys are and therefore
being unable to check their
track record, I am frustrated
by the fact that they have provided no documentation other
than two pages on how to turn
the devices on. This doesn't
happen with a big vendor.
Cisco. for example, provides

copious amounts of technical documentation.

Fve asked the mystery vendor for more documentation, and the people there keep trying to placase me by saying "Let us know when you want

and the proper there keep trying to place the mby saying.

"Let us know when you want to install, and we will walk you through it." I don't want them to walk me through it. I want them to provide me with what I need and then get out of my way.

Making Things Right So, what do you do when

you've made a big mistake? Step L admit you were wreng. Don't lay blame or pass the buck. Come on, say it out loud with me: "I was wrong. I made a mistake. Now I must make things right."

"Making things right" means figuring out how to repurpose the devices. I have eight of them. I could pack them up and ship them back to the vendor. But the devices are basically just appliances running open-source software for the various components, like Openswan for IPsec VPN functionality. Why can't I reconfigure them with Snort and

use them as network sensore? I wanted real firewalls, not a do it-all fand maybe do it-all poorly appliance. But selecting the right firewall and implementing it was not my begast concern. I was going to have to go to my boss and explain to him why these appliances are too risky to implement and how I would like to have to go them. Then I would have to go think the properties of several commenced in the control of the cont

I took the plunge and said to my boss, "I made a really big mistake, and I need your help." He closed the door to my office and sat down, "No." I went on, "it's not a personnel problem; it's a technical problem." He seemed to relax a bit. and I went on to say that I had zero confidence in the devices or the wendor that sold them and wasn't willing to install them inline and iconardize the stability and performance of our networks. He immediately responded. "It's not your fault I authorized the purchase and told you to buy eight of them without allowing you to test one in our environment first."

What a relief!

With my boss demonstrating such open-mindedness, I was able to explain wby the devices weren't suitable as enterprise-class firewalls and lay out my plan to repurpose them as intrusion-detection sensors. He liked the plan and subscript of the plan and subscript

Here's the lesson: Tell the truth, and admit when you have made a mistake. People usually respect that. Hopefully, you have a great boss like I do. F

WHAT DO YOU THINK?
This week's journal is written by a real security manager. "C.J. Kely," whose nar and employer have been dequised for

obsaud resons. Contact her at recipielly selection, or pin the discussions in our recursity blogs consustanworld.com/ blogs/hocarity.

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MARK WILLOUGHBY

In Search of the Information Kilowatt

HE DA VINCI CODE recalls the human fascination with the elusive Holy Grail and its promise to answer a lot of big questions. Electronic souls catch a glimpse of the information Holy Grail revealed in the virtual machine, which offers the promise of a transparent and seamless information processing utility where historic system, storage and networking complexities disappear.

mation point on the virtualization marketplace with the April 3 announcement that future versions of its virtual machine products will support Limix. The brave new world of virtualization makes bedfellows of Microsoft and proprictary software vendors like VMware with Xen and the

Microsoft mut an excla-

open-source community This electronic menage. a virtual alliance and not a traditional partnership, of fers the collaborative ben-

efits of federated information systems. swapping cross-domain intellectual DNA to simplify information services. Strategically, like shifting tectonic plates, the information marketplace released megatons of accumulated stress with Microsoft's announcement and moved closer to the information Holy

Grail: information as a utility service. The virtual machine marketologe is atop every IT prognosticator's list of hot growth technologies. The economic and business benefits of abstracting the information layer from the operating systems and hardware, and eventually the network, are addictive. It's as if the fuel-efficiency ratings for gas-guzzlers doubled at no additional cost.

Freed from the tedium of managing arcane parameters for operating systems. storage and platform configurations, we humans can do more information processing with less horsepower. Moore's Law and the rate of technological change get juiced up a notch, and the virtual



develop new tools for problems that somebody will Before we set too carried

hundles remain. Virtualization does a much better job of masking complexity and securely applying computing horsepower behind a firewall than do compute grids. But it does not give us the information kilowatt. Before you can plue all your information appliances into a wall socket - or

connect to virtual information services over a wireless signal - the marketplace needs a common definition for a unit of information service. It needs the information equivalent of a kilowatt of electricity to mask the complexity of what happens behind the scenes in creating, transforming and delivering the information service

The information kilowatt provides the economic and technical yardstick for measuring efficiency and providing the marketplace with choices. A mature information marketplace is analogous to the one for deregulated electricity, in which consumers choose among differentiated generators powered by wind. solar, coal or nuclear energy for a commodity service. Consumers weigh their buying decisions against the cost per

The virtual machine's ability to abstract information services from the underlying operating systems, handware and networks takes us a step closer to

information kilowett

the information kilowatt. The problem of information processing, storage and distribution can be bundled into a virtual machine as the common denominator

Obstacles remain on the path to virtualization, however. Cynics may say that the devil is in the details and that Microsoft dropped its virtualization bombshell in order to avoid further antitrust problems. It still has the lati tude to create a virtual system that falls short. Maybe, but there are plenty of smart people in Redmand who have read the seminal 1997 book by Clayton Christenson The Innoventor's Dilemma This work introduces disruptive technologies that redefine markets and the very high risks incurred by not responding to the changes taking place. It would take a huge investment in

leapfrog innovation on Microsoft's part to offer a better alternative, especially when it's playing catch-up with critical virtual technologies like hypervisors. Microsoft is faced with a Hobson's choice. Better to play by the new virtualization rules, even if the risks to Microsoft are greater than those posed by multimedia players, Web browsers. office automation products or a previous virtual machine based on Java.

There also is the book and costly is, sue of the installed base of older hardware platforms that lack the new CPUs needed to support the virtual middleware. There may be some legal speed bumps as vendors examine and negotiate intellectual property agreements for the storage volume technologies needed to support virtualization

Those issues will be swept aside by a marketplace seeking huge virtualization benefits. The promise of IT manapers being able to bot-swap beteroon neous systems in real time, like RAID disk drives today, and without disturbing applications, is worth billions. That, combined with an enhanced ability to select platforms strictly on a cost-effectiveness vardstick, rewrites the rules a

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Toughest Tasks
It's the tough times that teach you how to lead. Five ton IT executives share the most challenging experiences of their careers and the lessons they learned. PAGE 42



Q&A Under Threat of Litigation

If you haven't yet suffered through a software audit, just wait, says attorney Robert L Scott, Here's what you need to know to survive one. PAGE 48

When Life Intruder On the Workplace

The real measure of a manager isn't found in metrics, productivity or profit, says Paul Glen. When life intrudes, it's a boss's humanity that makes the difference. PAGE 50

YOU CAN OUTSOURCE A PROJECT, but you can never outsource management of a project. As outsourcing has grown to be a major tool in business projects, that maxim has been touted widely. But the devil's in the details. How, exactly, do you manage an outsourced project?

The folks at Marriott International Inc. are betting that they know the answer, and it may be simpler than you think. "An overriding principle at Marriott is that how we run an outsourced project and how we run an insourced project is the same," says Howard Melnick, senior vice president of information resources application services.

The Betherda, Md-based hotel management company has developed a set of project

rement processes to assign and track all project tasks and standardize metrics and reporting, regardless of who does the actual work.

A case in point is OCEANS (One Corporate Enterprise Advanced New-world System), a multiyear, multimillion-dollar project to transform Marriott's long-standing practice of managing finance and accounting

processes at the hotel level. The multiphased initiative will ultimately deliver a single, worldwide financial overview using a unified, scalable application architecture and PeopleSoft and Oracle financial software. Accenture Ltd. provides most of the IT services.

Marriott doesn't see outsourcine as a way to cut costs or get rid of a problem. h's a way to add temporary expert staff and save time on a project like OCEANS, "where I need 100 people, but I won't need them forever," says Melnick

ROVERNANCE

Marriott's project methodology is built around accountability and governance. so an outtourced project is never farmed out and forgotten. "And it's not like we have someone just watching the outsourcer work " Melnick cases We are ultimately accountable for the project, so to that end, we work with

the outsourcer to get it done. That collaboration starts at the top. "We have a very formal covernance process," Melnick says, Governance of the OCEANS project starts with a highlevel steering committee. It is made up of Melnick: Pam Murray, executive vice president and general manager of enterprise accounting services; and Paul Chiu, the Accenture partner in charge of the Marriott/Accenture relationship. We make up the three-leased stool of covernance," Melnick says, "We take that model and drive it down through

the organization." At the next level are the top project managers. Kent Petry, vice president of information resources application services, is the IT person accountable for all financial systems. Michael Collenvice president of figures and accounting, oversees the business component. Yutta Shelton, a partner at Accenture, manages the outcoursed less

On a large project like OCEANS, the steering committee meets as needed but at least monthly. "And we might have to set together at 700 in the morning because we have an urnent icena " Malplok cons But most issues are resolved before

they get to his level, "We'll start with the project managers (of individual projects within OCEANSI and say. You have three business days to get this resolved.' If they can't, we bump it up a level to Kent, Michael and Yutta. If they can't get it resolved, it comes to

me, Pam and Paul," The three-legged stool is pretty close to a partnership of equals. "My focus is to ensure that we maintain the integrity of the original business case," says Cullen, the business lead. "But we work in

A Sharper Outsourcing Skill Set

ol. He and IT project lead ed to be a step at

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If: Technical skills are a given, Pethy says, "but we reed a c and what they're doing and why - and the dow

- KATHLEEN MELYMINA

tandem. There were times when they culturally aliened with your organizawould meet with senior finance people tion." Cullen says and I wouldn't be there, and there were That eyes for the individuals as well times when I met with the architecture as the company as a whole. "We approve all the team leads, and we interview all

team and they wouldn't be there." Collen explains how each leg of the stool works "These initiatives are forreaching in terms of who you need to engage " he says "Finance touches just about every system and part of the organization. So there are dozens and dozens of people in the IT group who need to be engaged. Kent pro-

vides thus " For specific Oracle or PeopleSoft expertise, "Paul and Yorta can reach into their bench of expertise, whether for a week, a month or a year," he adds Cullen's role is to engage and align

the finance community. "It's pretty seamless," he says. "I judge the success of a project partly on whether, if an outsider came in, he couldn't tell the difference between a Marriott IT person, a business person and a consultant."

The apparent simplicity of the threelegged stool is deceptive. It means that an outsourced project takes just as much time and effort from IT and business management as an in-house project. And in one area - personnel - it takes even more

Marriott typically chooses the outsourcer through a comprehensive. competitive request for proposals (RFP) process. Among the most im portant factors it considers is cultural fit. "You have to pick the partner that is

everyone they may submit may be over petent, the chemistry is also important." The result of this attention to personnel unfront is long-term relationships

with individuals that sometimes transcend specific projects. For example, as an Accenture employee, Shelton has been working with Marriott for years. "We get a really good cultural fit, and we get continuity as well because we're not retraining people," Melnick explalos. "We're looking to create a strategic relationship [with the outsourcer], not a one-off transaction. We hope this is a win for both parties. It could be a multiple-year relationship, so you think about things in a longer context - much different than if it were one

Once an outsourcer is engaged. Marriott spends time on team-building. Many of the OCEANS team members recall a team-building exercise for an earlier project with Accenture. They all went to Annapolis, Md., where mixed crews of IT, business and Ac-

transaction."

centure people were given small sailboats. But it wasn't a race; the goal was to get all the boats to cross the finish line at the same time. "Seven years later, people still re-

member it," Melnick says, "It created a sense of unity around a common set of goals. It doesn't really help me to say, 'Great news: Marriott is delivering on all their commitments, but the oursourcer isn't."

How closely do the Marriott moiset managers work with the outsource? "I know Yutta's kids' names and birthdays " over Botts the IT lead "Thom's quite a bit of interaction. I've had two

meetings with her today already. Shelton says Marriott's skin-in-thegame approach makes a but difference 'Having the same core values and the same degree of accountability at all levels of all of the organizations is key." she explains.

ACCOUNTABILITY

Marriott's integrated view of the outpources's role exchesses the commotional wisdom of budgeting a percent of a project's funds for outsourcer management, "We don't think of it as a straight percentage," Meloick says. We think of it more as The we have the right roles covered?

Having the roles covered is shorthand for what's at the heart of Marriott's project management process: accountability. The company's understanding of what accountability means and its processes to ensure it allow the outsourcer to be integrated seamlessly the key people," Melnick says, "Although loto the project.

Accountability starts with an endto-end project plan from business case to postmortem, and the outsourcer is intimately involved. "You need to brine in the outsourcer as early as you can to help build out the project plan." Melnick says. That plan includes components from technology to training and change management, "because you could have the technology work perfectly and not get the benefits." he adde

Then the planners dive down into specific tasks where accountability is assigned, confirmed and monitored through a simple spreadsheet called the RACI (short for "responsible, accountable, consult, inform") document Marriott sees those as the key roles in any project. In the course of planning, Petty, Cullen and Shelton consider each task and determine who will ultimately be accountable for cetting it done, who will be responsible for actually doing it, who must be consulted along the way and who needs to be informed about it This prevents internecine squabbijng and finger-pointing and makes it for less likely that toes will be stepped on or that tasks will slip in the course of

"It's a way of thinking," Melnick says. "We're used to working in this way, and it clears up a lot of misunderstandings."

STANDARDS

Once the tasks begin, Marriott's processes and methodologies require that no matter who does what, it will all be done to the same standards. Melnick calls this "one of the key components of our success. You have the same mechanisms for how you report, how

you manage the project, how you measure success," he says.
"We manage by our metrics: we live and die by our numbers," Petty adds. Having strong methodologies heads off a common mobilem with outcomes

Having strong methodologies heads of a common problem with outsourcing, asys John Whitridge, vice president of information resources enterprise architecture at Marriot. If this nethodology didn't exist, when you bring in someone from the ourside, they would hring their own. But because this is so institutionalized, there's no accusant to fill.

The result: "When you manage projects, it's a lot more consistent," he says.
One of those methodologies is

one of these memodologies is carned value accounting. Marriott breaks down internal and outsourced projects into manageable chanks and does regular earned-value assessments. When an assessment shows slippage, the project managers determine what has changed, why and how they can

make a course correction.

All Marriot projects also use identical metrics and reporting vehicles, such as scorecards. We have that consistent management, project after project." Petry says. "I don't have to figure out which tool Pim using for this project, which methodology is prescribed. Whether the project is in the finance

group, the HR group or the sales group, it's consistent across the company." That consistent across the company. That consistent consistent consistent consistent consistent of ending the consistent consistent

customer service, he more efficient, de liver a milat customer experience, de liver on time on beaget and hit quality. To do that, her group developed a tool kit that, through standard sermindogy, processes and training, has changed the project many and the project and standard something that would work on a small project and a large project, insourced and outtoured, custom or [commercial offthe-shelf]. So it has a los of fireastility.

but between the language and the templates and standards, it's given us a way to communicate across the organization," she says. "And having these templates really speeds things up."

The people on the front lines of project management say Marriott's three-legged-stool approach works.

three-segged-stool approach works.
"I've been in this type of role for 10
years, and in the first half of that
time, we didn't use this model," Cullen says. "There's a significant differcoce in what I experience."
While the relationship between

IT and the business has always been strong, be says, "the difference is how we view the outsourcer: They're more than a vendor; they're a partner. Their

success is our success. If you view them as a vendor and you try to manage margins, it's a different menality. "Having the three-legged stool brings deep subject-matter expertise and the deep relationships required to engage the appropriate stakeholders." he says. "The combination is critical."

Accenture's Shelton agrees. "Once we start the race, there is only one color jersey," she says. "If somebody falls, we pick him up and keep on going. We all have to cross the finish line to win." b



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Toughest By Tasks

Systems fail. Employees burn out. Vendors disappoint. But it's those tough times that teach you how to lead. Five Fortune 500 IT executives recently told us what they learned from the most challenging experiences of their careers.

ar years ago. Lester was called on to resese a multimillion-dollar core business apcation project that was floundering. He rformed a technological reassessment, refined the project's goals and brought in new matters. He also had to make the difficult ission to replace a large, high-profile vendor.
se moves belped Lester get the project back on track
ut eight months later. But in the interim, the pressure

ac subsided. "The stakes were very high, it was an ex-

licated, international project," he says.

LESSONS LEARNED:

"Don't just preside over large projects; prosc tively stay ahead of them," says Lester. Focus on four core principles: people, schedules, budgets and measurements. "If one of the four gets out of whack, you need to know beforehand," he says. Get tough. If one milestone in a large project is missed, it can trigger a domino effect that can ultimately cripple the project. "Find out who missed the milestone and replace them," he says

"Call a fact a fact. Quit worrying about hurting people's feelings. I sound like a hard case, but re has to be pain felt in the corpus of the organization in these large projects."

 Establish a performance-based relationship with you vendors. There is too much at stake in large projects to proceed based simply on trust.

DENNIS FISHRACK mior vice president and CIO ine Corn., Sen Jose

ess: Foorey samelie You know that you are in the midst of the "TT perfect storm," Fishback save when an unexpected series of hard ware and software failures leaves you scrambling to get a critical business. operation back on its feet. Last summer.

a malfunctioning storage device kicked off one such storm or Calpine. The snafus that followed caused

major system outages, which threatened to cripple the company's energy trading operation. While working or the problem. Fish-

back's team had to calm the company's traders, who balked at reverting to manual work-arounds. "You do that by getting personally involved," he says, "I got on a plane to Houston to show that I was engaged" in fixing the problem.

LESSONS LEARNED:

Maintain a close working relation ship with vendors at the executive level "You should know who to call to get a personal commitment from them to solve the problem," Fishback says. Stay personally involved.

Show that you have confidence in your staff and third parties who pitch in. "You have people working around the clock for days on end. Make them feel like they are part of the solution, not part of the problem." Fishback save. Provide regular status reports during a crisis to executives, department

heads and others who may be affected Start now to manage your internal omers' expectations. "Keep them realistic. The systems aren't going to be up 100% of the time. They need to practice their manual work-arounds

routinely," says Fishback.

When Tragedy Strikes

According to FedEx CIO Rob Carter, the biggest lead ogos are those you face when your personal life is in hat nil. He knows, In 1997, Carte then FedEx's vice president of had just landed in Hone Kens on

a business trip when he get word that his 9-year-old son, Philip, her After that shottering loss, "icral ing up at work and figuring out how to continue to keep my wad up and be a leader was the most difficult 'assignment' of my

career," he recalls. The heartache made him a more ionate manager, he says. We all have seasons in our lives when we need to be surrounded and even protected. That's something I understand, as a manager. hetter than ever hefore."

Executive vice president and CIG dEx Corp., Memohis ness: Transports

Eighteen years ago, Carter was working on his MBA when he was asked to direct the development of a large-scale billing system at a relecommunications company. The difficulty of the project was compounded by the need in keep page with husiness requirements that charged while the system was being developed. There was also the challenge of adapting the legacy code, with all of the surprises it contained "There were huge pressures on us, with a lot of fault being placed on the IT team

for dates being missed," he says, "I saw the other side of the cumation, where we were trying to build something that was constantly changing Bolstering his team's confidence was key to meeting those challenges. "I spent a huge amount of time celebrating our successes," Carter says.

LESSONS LEARNED

 Acknowledge that "big bung" system development isn't a wise business strategy. It's better to break up your deliverables into increments

 Remember that logacy applications often contain solid components and code that is salvageable. "It needs to be re-engineered, it needs to have a new front end or user interface, it needs some rearchitecting, but you don't have to start with a clean sheet of paper," Carter says.

■ Give your team a chance to blow off steam during an arduous project. Carter arranged for his employees to include in fishing, go-cart racing and paintball fights. Stand up for your team. Fight to make sure that your team has the opportunity to lead a balanced life," he says.

TOM SHELMAN Vice resoldent and CIO rop Grumman Corp., Los Ange me contractor

When Northrop Grumman acquired three companies about bringing new employees into the told following cant employee engagement issues" early on, Shelman hired an independent consulting firm to interview the new employees and pauge their enthusiasm. He

learned that some weren't thrilled to join a new corporate family, especially if their company had already been acquired in the post. "It's humbling to find out what people really think versus what they tell you to your

LESSONS LEARNED

face," he says. These insights prompted Shelman to change some of his strategies. Employees in large companies are more likely to follow the lead of their managers, not their executives. Get the management team's support early

At your first meeting with managers, find out how they feel and address their concerns, "Mostly just by their knowing that we cared and were listening to them. we'd get the management team engaged," says Shelman

 If employees are gung-ho about joining your team but their manager resists, consider replacing the manager. "If the manager isn't behind you, you have 40 people who aren't behind you - even if they want to be," Shelman says.

HET WOFTEL ok of How York Co.

On Nov. 20, 1985. The Bank of New York's security broker/dealer clearing system suffered an epic meltdown that sent shivers through the

U.S. government securities market. "The application's original design did not take into consideration that the volumes it would need to

process on any given day could grow by 6,500%," says Woetzel, who had been hired just three weeks earlier to head a small IT team. The bank's inability to clear

U.S. government sec created a record \$23 billion overdraft at the Federal Reserve discount window that evening, and the bank racked up millions in inter est expenses.

LESSONS LEARNED:

 Develop processes to manage change. While few businesses suffice. the level of IT catastrophe that befull The Bank of New York, all bush

es change over time.

Build a culture that emphasizes technology risk management. "There nceds to be a strong emphasis on quality of technical design that cor siders the business dynamics and how engineers need to design for mitigating the risks those business dynamics create," says Wortzel

· Keep your staff aware of these principles. Woetzel frequently use the example of that fateful 1985 day, "There's nothing

like a real-life example to help people focus, he says, Artsenian is a freelance writer in Newport Beach, Calif. Contact her at jartuniani sbcglobal.net.



The offshore outsourcing hot spots

only choice the best

OffshoringUn

The popularity of some offshore outsourcing venuses has come sta price. IT wages in Moscow have sourced by 50% in the past few years. Bastong industive IT turnove in some cities in India execusls. 50% out his price surface and hiring IT salvet has become a nightmany, says Basas Farrell in this manh's II we at Business.

month's Hart and Business
Review. But the good news
is that many new locales
are upening up around the
are upening up around the
sworld. Furrell to diversor of
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plane, but she cataght up via a-mail to dis-

cuss how to weigh the hengins and risks of outsourcing in an untravel area.

So, despite the wage increases we hear about, the supply of low-cost IT talent abroad inst drying us? I here are a number of for aposts for IT talent in lowwage countries where wages are rising

mumber of low spots for II talent in lowup countries where stages are risingand attrition to high. Bumplaire, Ilyderadold, Prague are all goad examples. But the good news is those tend to be the exception, not the rule. Our research shows that the supply of talent in lowwage countries will continue to enwage countries will continue to ended the demand for many sorts to come. And that not so the systing protection of the stage of the stage of the theory of the systing protection of the stage of the stage of the theory of the systing protection.

McKinsey Global Institute's study of conditions in 28 low-wage countries found 6.4 million "suitable" young professionals.



Junioral pool of latent based on June Trees and American Bold Be caperts. The percentage of suitable young profess sionals varies widely from country to country; and population is not always an indicator of the size of the suitable taken pool. For example, in China, 1999 of originess are considered suitable for employment in a malintable for considerable for employment in a malintable for employment in a malintable for considerable for some considerable for some three considerable for the size of the Philippines, its pool is only three times as big.

What offset will these workers have on the one of offshore talent? Despite the talent had spots, the huge supply of saistable professionals available for hire means that their average wages will remain relatively how. Our research suggests that average wages for these workers that average wages for these workers

will not rise above 30% of U.S. levels. And dispute concerns in the U.S. and other developed countries, we don't anticipate that off-horing will impact salaries in high-wage countries significantly in the near term. That is because total offshore employment in services will libely represent only a full fraction. tion of overall employment in developed countries. Our estimates suggest that the total number of jubs offshored by 2008 will reach 4.5 million — a large number, but not relative to the sare of the developed-world labor pools.

For hot-spot salaries to level off, companies have to move into these new areas, and that means considering all kinds of benefits and risks that they don't need to think about if they're going into a settled market. What are some of those benefits and risks? Companies should weigh the brundies and risks paid risks from the risks?

and risk? Companies should weigh the benefits and risks before entering any market. We suggest that managers develop their own locution cost index, weighing a brot of factors, including costs, availability of skills, the business em ironment, the market potential and the quality of infrastructure.

You give examples of some surprising strengths in these new regions for companies with the right needs. Can you talk about the Duhai market for IT skills?

There are a number of countries that because attractive for offshoring when you make it follows to the fill as well as the countries that the country is the fill as the countries of the fill as the countries of the countries that the countries are considered.

Here are a number of countries that become attack two for offshoring, when become attack two for offshoring, when become attack two for offshoring, when he was considered and the countries are countries and the countries and the countries are countries and the countries and the countries are companies and the countries are companies and the countries are companies and the countries are considered and the countries are companies and the countries are considered as a support to th

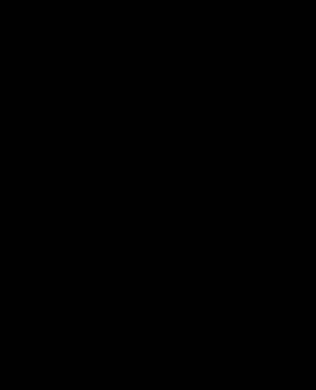
Obviously, it's scary to be among the first companies to establish operations or engage vendors in a new country. How should companies weigh and evaluate the ofits and rinks? They should weigh data on the basis of the relative importance of the factors driving the devision to go offshore. They should also weigh the risks, including disruptive events such as labor unrisings or nolleical unrest, security concerns, regulatory issues, currency fluctuation, and the strength of data and IP protection. So, for example, a U.S. company that purs the highest weight on cost will likely choose India, the Philippines or Malaysia, while a U.S. company that places a relatively high weight on the business environment may choose Mexico. Capada or Russia, or the U.S. itself. A Genman company with a relatively high weight on the business environment may ultimately opt for Eastern European countries like the Czech Republic.

What is company already has resources in a hot sport Dees in that some hot in the not to the high service in the highest probabilities in the same place? Agains in depends on the company; needs if a company open to expand its operations in a hot sport location, there are creative solutions to find how stage claims. In some cases, they may be able to persuade attractive employees to move from other critics before the open solutions. Allowing confers to tack open solutions. Allowing confers to tack open solutions. Allowing confers to tack open solutions are already of the company of the

Harvard Business Review

Where in The World?

SOME TIPS ON COMPARING LOCATIONS OBJECTIVELY:



The offshore outsourcing hot spots of the past decade may not be the only choice – or even the best.

OffshoringOpensup

The popularity of some offshor outsourcing wenoffshor outsourcing wenuses hat come at a price.
IT wages in Moscow have sourced by 50% in the past few years. Bunkling industry IT turnource in some cities in Indiae exceeds 30%, and hir ing IT tolent has become a nightmare, says Blana Ferrell in this month? Harvard Business Review. But the good news it that many new locales!

a corporate environment of the second of the

So, despite the wage increases we hear about the wage increases we hear about, the supply of low-cost IT talent abroad last' drying up IT There are a number of hot spots for IT talent in low-wage countries where wages are rising

wage countries where wages are rising and attrition is high. Bangalore, Hyderabad, Prague are all good examples, But the good news is those tend to be the exception, not the rule. Our research shows that the supply of talent in lowwage countries will continue to exceed the demand for many years to come. More than 90% of the young professionals with seven years' experience in the low-wage countries we studied live cutties.

McKinsey Global Institute's study of conditions in 26 low-wage countries found 6.4 million "sultable" young professionals



multinational company, menning they have the requisite language skills, stechnical knowledge, pracsical experience and ability to interact successfully in the calculated the suitable was compared environment. We calculated the suitable of taken based on interviews with almost 100 HR experts. The percentage of suitable young profes-

time percentage of stataster young processionals wares widely from country to country, and population is not always an indicator of the size of the suitable, an indicator of the size of the suitable, of engineers are completed in China. For employment in a multitantismal, compared with 20% of Filipino engineers. So even though China's population is 16 times the size of the Philippineer, its pool is only three times as his:

What offsot will those workers have on the cost of offshere talent? Despite the talent hot spots, the huge supply of suitable professionals available for hire means that their average wages will remain

relatively low. Our research suggests that average wages for these workers will not rise above 50% of U.S. levels. And despite concerns in the U.S. and other developed countries, we don't anticipate that offshoring will impact salaries in high-wage countries significantly in the near term. That'b because total offshore employment in services will likely represent only a fury frac-will likely represent only a fury frac-

tion of overall employment in developed countries. Our estimates suggest that the total number of jobs offshored by 2008 will reach 4.5 million — a large number, but not relative to the size of the developed-world labor pools.

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environment, the market notential and

the quality of infrastructure

You give examples of some surprising strengths in these new replace for conpanies with the right eache, Cen yes talk about the Union market for I skille? There are a number of countries that become attractive for offshoring when you weigh the full range of critical more last costs, particularly in some niche areas. Dubai has fairly high labor and telecommunications costs and a

niche areas. Dubai has fairfy high tabe and telecommenications costs and a small domestic market, but it offers a multinational, skilled and stable woyl-force, well-developed infrastructure. Zero taxes and great amenities. The country is now marketing itself as an ideal location for IT disaster recovery and backup facilities for companies with IT ristensive offshore operations in countries like Johns and the Philipping of the Philipping of the Countries and the Philipping of the Philipping o

Obviously, it's soary to be among the first companies to establish operations or segage vendors in a new country. How should companies weigh and evaluate the benefits and risks? They should weigh

data on the basis of the relative importance of the factors driving the decision to go offshore. They should also weigh the risks, including disruptive events such as labor uprisings or political unrest, security concerns, regulatory issues, currency fluctuation, and the strength of data and IP protection. So. for example, a U.S. company that puts the highest weight on cost will likely choose India, the Philippines or Malaysin. while a U.S. company that places a relatively high weight on the husiness environment may choose Mexico, Canada or Russia, or the U.S. itself. A German company with a relatively high weight on the business enviro may ultimately opt for Eastern Euro

pean countries like the Czech Republic, Hungary or Poland.

What if a company already has resources in a hot sect? Does it make seems for it

is a bot spet? Does it makes some for its nod forward performent the same place? Again, it depends on the company's media. If a company opes to expand its node forward performance in a creative substance, they are creative substance, they are creative substances, they may be able to persuade attractive employees to move from other crities to their hot-spot operations. Allowing workers to tele-communic is another option, as its setting up smaller operations in lower-count city than the companion of the companion

This is the latest in a series of monthly discussions with Harvard Business Ravie authors on topics of interest in IT managed

VITCIC
VOITCE



Tim McGraw and Faith Hill's Neighbor's Keeper Foundation proudly joins Samsung's Four Seasons of Hope.

If this year's benefit and special performance were more intimate, your table would be the stage. Please support Tim McGraw and Faith Hill at Tavem on the Green on June 22" to help the Neighbor's Keeper Foundation which provides funding for the purchase of goods and services designed to directly impact those in need. Other charities in Samsung's Four Seasons of Hope that are dedicated to helping those in need are proudly led by Joe Torre, Boomer Esiason, Dan Marino, Jon Bon Jovi, Rudy Giuliani, Amold

























OTE: The 2006 fourt represents a Plu on the previous year, the first time since 2007 that the number of IT jobs has increased.

ortium of 10 colleges, most in the Southeast, has received a \$2 milion National Science Founds grant to recruit a diverse group of idents to earn college degrees in IT, iter science and other comput-

ing fields. The STARS (Students and Text ncione in Academia Research i and Service) Alkance arms. to encourage more paggie to During Carrers in commuter science and IT, particularly

somes underwansented minorities and people with disabilities. As reported on Computerworld.com last

month the Washington-based Computing Research Association says that the number of bachelor's decrees in computer science. at Ph D.-granting universities left to 11 808 in the 2004-05 academic war down I/No. from the previous year. Those schools enrofi about 30% of the total undergraduates in the U.S. The same frend may also be effecting academic programs that combine business and IT skills frammo

The STARS Student Leadership Corps will consist of 137 students in the first year of the project and more students in subsequent years. The program will use peer mentoring, research exponences, cruc ongagement and professional develcornect to support computer

science students throughout their academic careers. Participating stadents will receive strongers for two years to help recruit and retain other students

Meanwhile, the Nahonal Center for Women & Information Technology received a \$1 million, four year grant from Microsoft Corp in order to encourage women's parthoration in IT



How would you characterize the IT labor market? is there strong demand for certain types of skills? There's strong demand in certain vertical industries. There's more money in the economy, and our business almost tracks the economy like a mirror. We're seeing strong demand for people with solid project-management skills. We're also seeing strong demand for sophisticated Java - speofically JOFE - Inks. Propie with Microsoft Not skills are extremely popular nebt new Within these skill sets, clients are also looking for people with vertical-industry expertise, like pharmaceutical or biotech expenence

Write seeing stinen demand for Drackdatabase administrators and a need by Hey systems administrators. Write also seems a lat on the data warehousing/business intel-

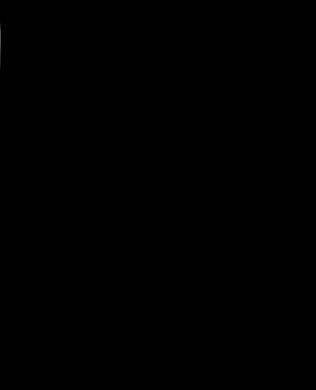
is increased demand driving higher weres 2 What we can bet you use a levelop of waters in 2006, we're second an increase in wages. Quality talent is scarcer. 50 people are recognizing they need to be more flexible around compression. We've also seeing [IT] teams a little bit better staffed than in the past. It's unsustainable to have people work 12 to 15 hours a day. Companies

Are the IT workers who lost their jobs between 2001 and 2005 re-entering the market? Highly skilled people, people who brought value to the cleent stayed employed. They might we staved employed with a slight rate reduction, but not by much Those people who weren't as highly skilled might have run into problems. If you were doing Cobol, CICS or DB2 [programming], you found yourself in a world of hurt for a while I don't really see them coming back into the workforce that much

Are employers learning more toward hiring contract workers or full-timers? We're seems fampleyers) trying to have their cake and eat it too. Most clients would like to bring workers on as contract labor with the option of picking them up as permanent employees. It's almost tike doing a working interview, banning someone on for six months. and then determining whether to being them. on kell time. We're seemn a lot of that a

OR THE STREET, OF STREET, CONTRACTOR AND BURGET PRINCIPLE A SUPPLY SAME

DATA BANK workers who say they are very or somewhat satisfied Say they would change their mix of cash and benefits if they could Say they want a figuible schedule 26 Work for an organization that does not offer health care benefits Would consider working for a company that doesn't offer health care Want additional family benefits



Career Watch





A consortium of 10 colleges, mostly in the Southeast, has received a \$2 million Matternal Science Foundation grant to recruit a diverse group of students to earn college degrees in IT, computer science and other conquest.

ing fields. The STARS (Studen noticy in Academia, Research and Service) Affiance aims to encourage more people to pursue careers in computer scenor and IT, perticularly

women, underrepresented remorties and propie with disabilities. As reported on ComputerworkLoom last

month, the Washington-based Computing Research Association says that the number of barchelor's degrees in computer science at Ph.D.-granting universities list for 1805 in the 2004-05 academic year, down 17% from the previous visit. Those schools on 2005 2001

SOTT: The 2005 figure represents a Philipson too the produce are the first two served 2007 floot the native of it puts to sorough control employees a served 2007 and the native of it puts to sorough control employees a served and a served 2007 and the ser

rol about 30% of the total undergraduates in the U.S. The same trend may also be affecting academic programs that combine business and IT skills training. The STARS Student Leadership Corps

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Meanwhile, the National Center for
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a 51 million four-year count from Microsoft

Women & Information Technology received a \$1 milion, four-year grant from Microsoft Corp in order to encourage women's pertropation in IT.



Pronocition, N. J.

How would you characterize the IT labor market? It here strong demand for certain types of skille? Phere's strong demand on certain types of skille? Phere's strong demand or certain vertical reductive. There's more morely in the concern, and our business almost tracks the economy, and our business almost tracks the economy less a sense, they concern for people with seld project management skills. We to also seeing strong others and see specialists and war - spe-

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cilically JZEE – folio: People with Microsoft Not skills are extremely popular right now. Within these skill sets, clients are also looking for people with vertical-industry expertise, like tharmacrutical or botter's expressors.

We're seeing strong demand for Oracle database administrators and a need for Unix systems administrators. We're also seeing a lot on the data warehousing business inte-

Is increased demand driving higher wapes? What we saw last year was a leading of wages in 2005, wire seeing an increase in wages. Quality talent is scarcer, so people are recognizing they need to be more flexible around compression. We're also seeing [IT] teams a little bit better statiled then in the peet. It's unsustainable to have propole work 12 to thours a deep Companies.

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DATA BANK

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Say they would change their majer cash and benefits i

33., Say they want a flexible schedule.

25. Would consider working for a company that deeps' offer health care

22° Ward additional family benefits

Are YOU being PAID what you're WORTH?

FIND OUT when Computerworld publishes the results from its 20th Annual Salary Survey of IT professionals!

How much are other IT professionals with your experience and credentials earning? With help from you and your IT colleagues across the country. Computerworld will answer that question when we deliver the results from our 20th Annual Salary Survey.

Please take our survey now and enter a drawing to win one of 10 Apple iPod Minis. Our survey period closes Friday, July 14, 2006 at 5p.m. Eastern time.

Survey results and feature stories that offer practical career advice will be published in the Nov. 13, 2006 issue of Computerworld. It will offer detailed information on average salaries and bonuses, broken out by tile, industry and region. Noul'l be able to compare your organization's compensation plans with those of other companies and find the hottest areas of the country for 1T pay.

To take the survey, and qualify for the drawing, go to: www.computerworld.com/salary2006?src=H

1 OF 10 APPLE IPOD MINIS!

COMPUTERWORLD SALARY SURVEY

Under Threaton

HOW TO SURVIVE A SOFTWARE AUDIT "There are two types of companies: those that have been audited I for

software violational and those that will be. "So says Robert J. Scott, the manageine partner of legal and technology services firm Scott & Scott LLP. Recent settlement fines for soft-

ware license violations have topped half a million dollars, says Scott, and that's only a small part of the true cost to an gudited company. Scott, who has exten-

size experience defending companies in software audits, spoke with Computerworld's Kathleen Mehmuka about worr rights and responsibilities.

Let's start with the besiew What is a sefeware audit? A software audit is a cuphemism that describes circumstances under which a publisher or trade association investigates whether its customer is in compliance with software licenses and copyright laws pertaining to its products. In many instances, a

threat of litigation. They send a letter in which they say they will forgo litigation if you agree to produce proof that you're in compliance.

Why might L as a CIO, find myself in the middle of an audit? There are a number of risks and the categories depend on the size of the commany. If you're the CIO is a large enterprise, you are going to face audits from the vendors directly related to contractual audit rights contained in most software license agreements. In a midsize or small enterprise works more likely to be targeted by a trade association such as the SIIA (Software & Industry Information Association or the BSA

[Business Software Alliance]. What are the chances of that happening? It's inevitable, Adjusted for time, having an audit is a virtual cortainty. And most publishers are only enhancing their enforcement operations. Both the BSA and the SIIA have quadrupled the employees over the last six months Most IT budgets are fairly flat, and the only way the industry is going to survive, in their opinion, is by increasing wallet share. One way of doing that is by auditing and using that as a mechanism to conscrate conseque

If I'm faced with an audit, how werried should I be? You should be very worried. A software audit is a big deal for a number of reasons. The biggest is the organizational impact and discustion. There's also the financial impact, and damage

to brand from the negative publicity associated with an unsuccessful andir

What kind of resources will it take for my company to address a software audit? The amount depends on the scope. Avency audits are broader because they represent a number of publishers. An individual audit is more narrow in score so it's less disruptive. But the impact is significant. It will require emergency

software audit is conducted under the projects in IT that are unplanned and reward money offered to disgruntled

CAN YOU HANDLE ALL THE DATA THAT'S COMING YOUR WAY?

end functionality. We know what you're up against, and it's a lot. An explosion of data, a co ed resources. Our new midrange modular storage solutions help you tackle these issues and more. Three cost effective solutions the Net unhudgeted, and emergency projects in procurement and finance, also unbudgeted and unplunned. There will be significant impact in the legal department because you are threatened with copyright infringement litigation. And the C-level sulte will be impacted as well.

What types of things are auditors from the BSA and SIIA looking for? The typical request is for the company to docu-

request is for the company to document every single installation of software, throughout the enterprise, of the member publishers — what products and how many installations by version — and to produce a dated proof of purchase that demonstrates that the software was purchased prior to the date of the audit letter.

So they want to shift the burden of proof to the company that is the target. It's not, "Me'll prove you've done somethin wrong," but, "To avoid court, you have to prove to us that you haven't done are

Think about the impact of documenting every installation of every product, but also the document collection and reconciliation, which is highly time-consuming, expensive and difficult to accomplish.

What are some of the common miotakes a novice IT manager might make when faces

which as suffix The Mr. and when head with a new with an audit? The No. I mistake people make is to think of this as a purely IT problem. It's not not IT problem modely: it's a legal problem. It's a threatened copyright infringement case, and you need to involve lawyers who have expertise in managing the risks. Having said that, we have seen clients do things that door! manage those risks. The biggest mistake they make is to me out on an inflict entition. However, the properties is the control of the properties of the properties

spree as a result of receiving the audit letter. But it's too late. The second-biggest mistake is failure to produce the audit materials as of that effective date. Clients come to us later, that doesn't even purport to be a picture of the situation on the effective date. Pyrically, it's a picture of the situation a month or so letter in the meantaine, the CEO has gone to the CEO, they've downloaded free discovery tools, they've bought software, they've down another or of things that cransed a delay because they have the period of things that cransed a delay because they have the very properly advised. And typically, they're not dought he investigation until mouths lister. IT is a dynamicous unit mouths lister. IT is a dynamicous mill mouths lister. IT is a dynamicous million and million mouths lister. IT is a dynamicous million m

they haven't been properly advised. And ryfocially, they from doing the invessipation until months later. If is a dynamic environment it constantly changing. The third minitake is voluntarily perpendicularly the state of t

cussions, and they cannot take what we give them and use it against us in court. P
The fourth mistake is that people fall to understand that there are many monetary and nonmonetary commonents.

postsettlement costs in terms of future audits and certifications, and those postsettlement and nonmonetary costs affect the total cost of a software audit.

What steps should a smart IT manager or C10 take to prepare for an impending

software audit? The only way to be successful in achieving a low-risk state is to build appropriate processes and procedures into your daily business operations. It needs to be part of procurement, part of IT operations, part of document retention and accounting operations. You have to comply with good business practices, serain documents you need to retain and implement the tools you need to do internal auditing so you can constantly manage what you have and reconcile what you have installed against what you've purchased. If you don't have in place a program for software management that can provide internal audits with accurate, predictable and consistent results.



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PAUL GLEN

When Life Intrudes On the Workplace

VER THE VEARS I've come to the conclusion that a critical measure of a manager isn't always found in hard metrics productivity or profit, but in humanity. I've also learned that this humanity often shows itself best when life intrudes on the workplace.

Many years ago, I went through a rather painful divorce (not that there's any other kind), and I was astonished at how my boss handled the situation. His human kindness showed through in how he dealt with me when life intruded on work, and the way he behaved

turned out to be not only humane but good for business. At first I tried to hide my marital problems Even though I was separated. I didn't tell anyone at work about it. I didn't want people to think of me as

unstable or unreliable al. though I knew that I was both Plus who wants to start telling all their coworkers about what a dirry so-and-so their soon-to-be ex is only to reconcile and then have to sheerishly explain why they were totally wrong about their prior grievances? At the same time, I was

a basket case. I couldn't focus on work, only on the waves of emotion that seemed unstoppuble. Anger, fear and sorrow were my ever-present companions, and the petry details of work seemed overwhelmingly unimportant. I couldn't

focus on anything but my crumbling personal life. By the time I realized that I hadn't accomplished a single thing in a month, I decided that I should talk to my boss about what was going on. But I was still reluctant to do it. I was afraid that I'd he fired for my poor productivity or

marginalized as a mental case. I imagined the meeting many times. All the scenarios in my head ended with embarrassment. shame and humiliation. and some even included

impoverishment. So, prepared for the worst, I went to my boss's office, slunk inside and about the dance

The conversation started out much like any other one: There was the normal amount of small talk, some observations on the project I was working on, his listening, my fidgeting. Finally. I let out my awful little

secret. I explained that I knew that I Many times that summer, I wanted hadn't been very productive lately and apologized for not telling him about my personal issues sooner. I confessed that I didn't know what to do about it.

issue

Then I shut up and waited for the ax But it didn't. There was no "Pull yourself together, man" talk, Instead. he started telling me about his own personal life, about the time that he and his wife had separated and almo gotten divorced. He talked about the

challenges of divorce and of reconciliation, of work and home, of planning for a life and then reconstructine it after the plans fall apart. It was most reassuring But despite the reassurance, I still

waited for the ay to fall As the meeting progressed, my boss never brought up the subject of work. He kept the conversation on my life and his. So I turned the conversation to work. Knowing that my attention was elsewhere. I still felt the need to decide what to do about my lack of focus and production.

My boss agreed that we probably should reassess my workload and task assignments. He told me to first worry about my life and to take the time I needed to get things together in that area. He would continue to keep me on the project, but in a less-central role. for now. My critical-path tasks would be reassigned, and new, less-critical ones would be assigned to me. That way, if I was late or my work quality was poor, it wouldn't be as bie of an

I walked out of his office in a

stunned daze. I hadn't dreamed that he would be so supportive. Of course, I was half suspicious that his kindness would wear off at some point and I'd be out on the street But through the long summer, he

was true to his word, never intruding on my life, never complaining about my sorry state

to quit, leave town and start a new life. but I didn't. I stayed with the company for many years and went on to head up its West Coast operation. The professionalism and kindness

my boss had shown belond keep me at the company, and I like to think that I renaid it well a

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Using Technology to Get Better Answers Faster
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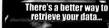
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Microsoft to Expand BI Plan

BY HEATHER HAVENSTEIN

Microsoft Corp. this week plans to unveil an updated business intelligence strategy that includes its first husiness process management (BPM) offerines

The BPM family will feature new dashboard tools and analytic applications for budgeting, planning and other financial tasks, analyses said.

Microsoft will also announce plans for shipping the visualization tools gained with its acquisition of ProClarity Corp. in April, analysts said Some of the products will be available later this year while others will ship next year, an

amalust exid Even though Microsoft seems poised to expand its BI initiatives, some users said they have already successfully replaced traditional BI tools with the vendor's SQL Serverhased tools

Goulds Pumes Inc., a subsidiary of ITT Industries Inc. last week began to move all of its 2,000 internal users to Reporting Services 2005 the reporting tool in SQL Server 2005, said systems analyst and database administrator Chris-

topher Bellizzi. The Microsoft tools will replace ReportNet reporting software from Cognos Inc. at the Seneca Falls, N.Y.-based manufacturer of water pumps. Bellizzi said. The company also uses an earlier version of

the Microsoft reporting tools. Later this year, Gould's plans to replace the Cognos PowerPlay analysis software used by its power users with Microsoft's Analysis Services 2005 OLAP tool, he added.

The annual licensing costs to keep the Cognos software in place are approximately equal to the one-time licensing and hardware costs of deploy ing SQL Server 2005, Bellizzi said, without providing any

BI TIMELINE Microsoft's Moves

1999: Rolespes its first OLAP tool as cost of SQL Server 7.

figures. In addition the Connos software was "really overkill" for the company's reporting requirements he said Goulds Pumps also expects to further reduce its use of the Microsoft Access database as it expands its use of Reporting Services 2005 and its SOIT

Nevember 2005: Ships its Office Business Scorecard Ma ager 2005, which measures piowe performance against Hevernber 2005: Ships SQL Server 2005 with enhanced report

ing end arghests software. April 2006: Acquires SI analyt-

Server database. Use of the

older Reporting Services 2000 has already allowed the firm to cut its total Acress licenses from 6 500 Access databases three years ago to 4,000 "We're generating close to 2.000 hits on the Reporting Services database for renorts

every month," Bellizzi said. Who knows how many (Accres databased I can really crick a fork in, because you can use [Reporting Services 2005] and set the same information? Crossmark Inc., a provider

of labor and services to consumer packaged goods manufacturers and retailers has almost completed a project to replace a pure-play BI tool with Reporting Services 2005 said Charlie Orndorff wice president of infrastructure

services at the Plano, Texasbased company He declined to name the

tool being replaced but said it was too cumbersome for monitoring sales of specific products by stores. When the rollout is complete Reports ing Services will be used by 16,000 employees to pull summary data from a field force automation application run nine on SOL Server 2005 said Orndorff. The database processes point-of-sale data for

30,000 locations and 60,000 items woulds be said Experien Marketine Services in Costa Mesa, Calif., began

using SOL Server 2005 BI tools in production about six months ago for a project called ProspectVue said Fric Tueliere vice president of technology Experian is usine SOI Server to process large data sees about

noteorial customers for retail. ers, financial services firms catalog companies and other businesses to use in marketine campaigns, Tagliere said. The company has struggled

to optimize the SQL Server database to meet its perfor-Microsoft had to make some changes to how their software processes some things to peovide us the speed and scalability we need." Tarliere said. Some of the products will

ship later this year, while others will be available next year, analyses said a

Continued from page 1 Sun

may reflect overlap from the Storage Tek acquisition. Chuck Sears, director of research computing at Oregon State University in Corval lis, which has more than 100 Sun Opteron-based servers. added, "We all look forward

to future clarification" about Sun's plans Sears said he hopes that the moves won't slow Sun's effort to integrate its computer, storage and networking systems. so he can devote resources to research rather than to im-Sun declined to specify

proving systems integration what products will be affected by its streamlining, other than to provide a written statement that "the company has not identified products or projects that will be affected at

this time." "There was very, very scant information provided ther would allow us to go through an analysis of what the effect is going to be on Sun's products," said Paul McGuckin, an analyst at Gortner Inc.

Between the Lines But analysts did make some

acceptances based on what Schwartz didn't say. For instance, Schwartz told financial analysts that Sun will focus on network computing and cited several technologies that represent the future of such system innovation." His list included the UltraSparc eight-core Niagara servers. some new Storage Tek storage tape drives and "Thumper," a soon-to-be released Operron-

based product that combines servers with storage. Including the Thumper technology in Sun's future plans "calls into question some of Sun's other storage products, which are based upon proprietary technology." McGuckin said. Those proprietary storage technologies are going to get more scrutiny and perhaps cut," he said.

Sun Workforce Sun plans to cut 4,000 to 5,000 sobs. Here's a look at the head count every year since each fecal year on June 30

What we're telling clients is any road map dependencies that they have, they should get written commisments from Sun." McGuckin said

Schwartz took leadership of the company on the same day it posted a fiscal third-quarter loss of \$217 million. Despite the loss. Sun officials expressed optimism about the future, pointine to a 20% increase in processe during the same period, to \$3.2 billion. The acquisition of

Storage Technology Corp. last August belied to boost revenue in the quarter. Analysts had expected

substantial layoffs, though Schwartz had said in April that the company may only need some "pruning "Customers can expect

some consolidation in their sales force, and they are going to find it harder and harder to get a specialist," predicted Susan Aldrich, an analyst at Patricia Seybold Group in

Boston.

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FRANK HAVES . FRANKLY SPEAKING

Vista Opportunity

"OU'RE about to get a rare opportunity. Oh, not this week, or even this year. But sometime next year, you'll likely start rolling out Windows Vista, That's when you'll have the opportunity to make your end users truly loathe you - or make them feel like IT really is on their side after all. Here's the deal: Now that we've seen the beta version of Vista, we know that with Vista's tighter security, users suddenly won't be able to do things they did before. And Vista's fancy new user interface will break a decade's worth of efficient user habits.

Ooh, they're gonna hate that.

Your opportunity? It's in a few key decisions that will make users' transition to Vista either miserable or much easier. Those decisions are whether you'll help them install their personal software, whether you'll adjust Vista so it uses classic Windows menus and whether you'll helo them with Vista at home.

Personal software: You know how annoying it is that users install just about anything on their PCs? Vista's tighter security makes that harder to do. Users will no longer have administrator privileges, so they won't he able to install some software. Other software may not install at all. because Vista is designed to reduce registry changes and other problematic practices.

For IT people, this sounds like a dream come true - no more users messing up PCs with their own software. Trouble is, some of that software is actually useful to users, and even crucial for cetting real work done, even if it's not IT-approved. If users can't install it once you roll out Vista, you'll make enemies and damage productivity in a single shot

Here's your decision: You can just say no to non-IT software, locking those PCs down hard. That's declaring war. Or you can say "Yes, but" - as in "Yes, we'll install that for you, but we can't support it, and if it turns out to be a problem.

we may have to remove it. Sure, that's more work for IT. But it makes you look like good guys. You also get to see what users are installing and keep an eye out for illegal or dangerous software.

And if something just won't install. ou can explain that you're sorry but Microsoft beefed up security in Vista and you can't change that. Users won't he happy, but at least they'll he mad at Bill Gates, not you.

Classic menus: By default. Vista eets rid of the drop-down menus users are used to. Your decision: Leave it that way or tweak your distribution image so your company's standard Vista uses "classic" Windows monus

If you put the classic training wheels on Vista. some users are sure to experiment and may switch to the new user interface. But until then they'll be able to find their way around. On the other hand, if you go with the snazzy new Vista look and feel, expect a big training cost - or a big productivity hit while frustrated users fumble around figuring it out

Your help desk will need to support both versions. But when they get the inevitable "Why is this so complicated?" question, their mantra can he that they're sorry, but that's how Microsoft set up Vista. That's right - blame Bill Gates again. Vista at home: Vista will come in multiple fiavors. Some home-PC versions lack features that

business versions have. Your decision: Let users dope out the differences on their own, or crosstrain your help desk on the home version. There's an easy way to solit the difference:

Buy a cheap Vista home PC for the help desk to kick the tires on. Face it - some users will be working from home on these crippled Vista versions. The more you can help them, the more productive they'll he, and the happier they'll he with IT. And when they ask why their version of Vista is missing what they expect - well.

you know the mantra So there's your opportunity: When Vista rolls out, you can hobble users or help them. Just remember that if you make them do it

And it won't be Bill Gates #

A Little TOO Efficient

the hard way, they'll figure out who

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